COMMERCIAL CAR JOURNAL

with which is combined Operation & Maintenance

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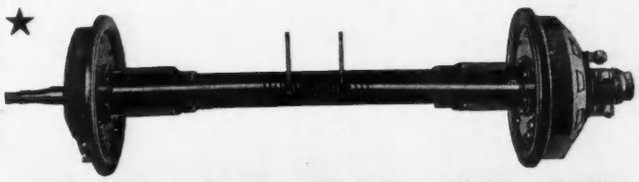

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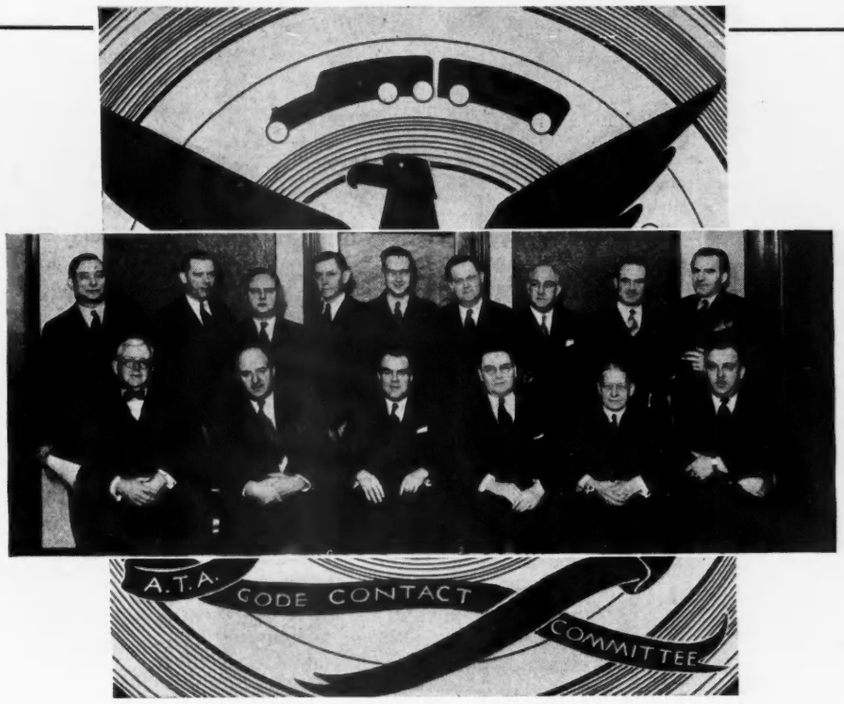


Seated Left to Right Wm. C. Fitzpatrick, James E. Murphy, Ted V. Rodgers, Roy B. Thompson, George W. Daniels, Curtis C. Stewart.

Operators Will Fight Any Attempt In Congress to Regulate Trucks

A.T.A. asks opportunity to develop self-control of industry under Code of Fair Competition. Urges enactment of legislation to prevent railroads from chiseling against trucks on rates.

THE trucking industry wants an opportunity to work out its own salvation under its code of fair competition without interference from Federal regulation. Furthermore, it wants certain restrictions placed by Congress on the railroads so that the latter may not continue their destructive practices of "chiseling" rates to undercut their truck competitors.

These and other requests were embodied in a memorial approved by the directors of the American Trucking Associations, Inc., and sent to General Hugh S. Johnson, Federal Coordinator of Transportation Joseph B. Eastman and members of the Senate and House committees on interstate commerce.

In opposing Federal regulation of their industry at this time, the truckers contend that the code, now before General Johnson for approval, will provide the necessary regulation to bring about stabilization in the industry. Because of the far-flung nature of the trucking business and the millions of operators so engaged, they believe more effective control can be exercised through the medium of the code than can be accomplished by a centralized Federal agency.

"There is not sufficient data available anywhere," said Ted V. Rodgers, president of the association, "on which to predicate intelligent regulation of the trucking industry. The code will furnish such data. Under the code a closer degree of organization of operators will be developed which is an essential prerequisite to effective regulation of the industry.

"The code will reach into every hamlet of the nation, giving control to local divisional groups under every type of operation, such as would be physically and financially impossible under any existing Federal agency. The cost of regulating the industry will be borne by the members of the industry and will not be a drain on the treasury of the United States.

"The industry can be better policed and regulation better enforced through the administration of the code authority than through federally-imposed legislation. Any regulation proposed at the present time contemplates the placing of the industry under the Interstate Commerce Commission.

"The supervised regulation provided for in the code furnishes the industry the means by which it can stabilize itself much more effectively and sooner than can be accomplished by bureaucratic or Interstate Commerce Commission control."

The American Trucking Associations, Inc., it was explained, is a national organization, representative of 108 re-

gional, state and local associations of motor truck operators. Its affiliate associations list among their members operators not for-hire as well as operators for-hire, common and contract carriers, over-the-road haulers, local draymen, specialty carriers and the various other operators engaged in the trucking business. The national association estimates that approximately 2,000,000 operators, employing about 3,500,000 workers and having investments close to $5,000,000,000, will be subject to the code of the trucking industry.

Because of recent practices of many railroads in reducing their rates to levels considerably below truck rates, under the guise of "meeting truck competition," the association will urge upon Congress the enactment of the necessary legislation to restrict the Reconstruction Finance Corporation in making loans to railroads when such railroads have in force rates ostensibly adopted "to meet truck competition" but which are not remunerative.

"The railroads have launched a vicious campaign of rate-cutting," Mr. Rodgers said, "at a time when truckers are stabilizing their rates under a code of fair competition, thus proving their loyalty to President Roosevelt's recovery program. Most of these cut rates are non-compensatory; the railroads cannot continue them in effect for any length of time without drawing on the Federal treasury—the taxpayers' money—for additional loans. There can be only one purpose behind this program of 'chiseling' and that is to drive truck operators out of business. It is clearly evident that with 3,500,000 workers in this business, the railroad cut-rate war will play havoc with President Roosevelt's reemployment and recovery program."

Traffic League Modifies Its Stand of Federal Truck Regulation

OF deep significance with reference to the action the coming Congress is likely to take in the matter of transportation, is a communication sent to Joseph B. Eastman, Federal Coordinator of Transportation, by The National Industrial Traffic League.

The document was prepared by the League's counsel, at the request of the Coordinator, and provides a basis for legislation intended to regulate motor vehicle and inland waterway transportation. Specifically, it is a reasoned opinion, developed in response to two questions contained in the Coordinator's recent questionnaire on freight transportation, one of which asks: "What legal authority exists under which the government could enact legislation to regulate contract and private motor carriers?" The second question asks for similar authority with respect to private and contract water carriers.

In preparing its original answers to the questionnaire, the League passed these two questions with the remark that an intelligible answer called for a measured legal opinion; it is that opinion, prepared at the Coordinator's request that is contained in the letter of the League's counsel, John S. Burchmore, Luther M. Walter and Nuel Belnap.

Generally speaking, although the League's practical opinion in the matter of the desirability of Federal regulation for highway and inland waterway transportation is modified, its legal opinion is to the effect that there exists ample precedent, both in earlier legislation and in court decisions, to indicate that regulatory measures on the part of Congress to control transportation by private and contract carriers on the highways and inland waterways would be constitutional and enforcible.

"There are broad measures," says the League's opinion, "which Congress can impose upon contract carriers and even on private carriers by highway or waterway which unquestionably be found constitutional by the Supreme Court."

Such measures, although broad, the League thinks, ought not be radical because "some such measures as have been suggested we believe the court would condemn as unconstitutional." This would not preclude legislation regulating "rates and practices of contract carriers, their accounting methods, protection of their patrons from loss by requirement of bonds, etc., and even legislation extending to matters of safety."

Citing then the famous "Shreveport case" the League's opinion says that "Federal regulations applicable to interstate operators, whether contract or private, going beyond their interstate activities and purporting to regulate also their intrastate transactions, probably would be within the powers of Congress."

The National Industrial Traffic League is an association of shippers the membership of which controls a considerable share of the freight traffic of the country. It is regarded as significant that the general counsel of this organization sees the way clear for Federal legislation intended to bring the regulatory status of railroads and other modes of transportation nearer to a par. The purpose of the Coordinator's questionnaire was to develop information upon which suggested legislation on the point could be prepared for the coming session of Congress. His desire to have the views of counsel for the League indicates his interest in its legal opinion, and the tenor of the reply leaves little doubt that such legislation will be brought before the new Congress.

Fleet Discount Decision

By Code Authority of the Motor Vehicle Retailing Trade

(Applying to trucks and commercial cars of ¾-ton capacity and under and to all passenger cars.)

IN order to facilitate the handling of quantity business and to enable dealers to make deliveries of cars to such purchasers the following procedure has been approved:

All sales are to be made by and through dealers at regular delivered prices and dealers may handle any used car that may be involved at the regular official book price.

On such deliveries made to quantity purchasers it is understood that upon such cars delivered the factories by contractual arrangement with the dealers will bill such cars to the dealers at 3 per cent less than the regular discount.

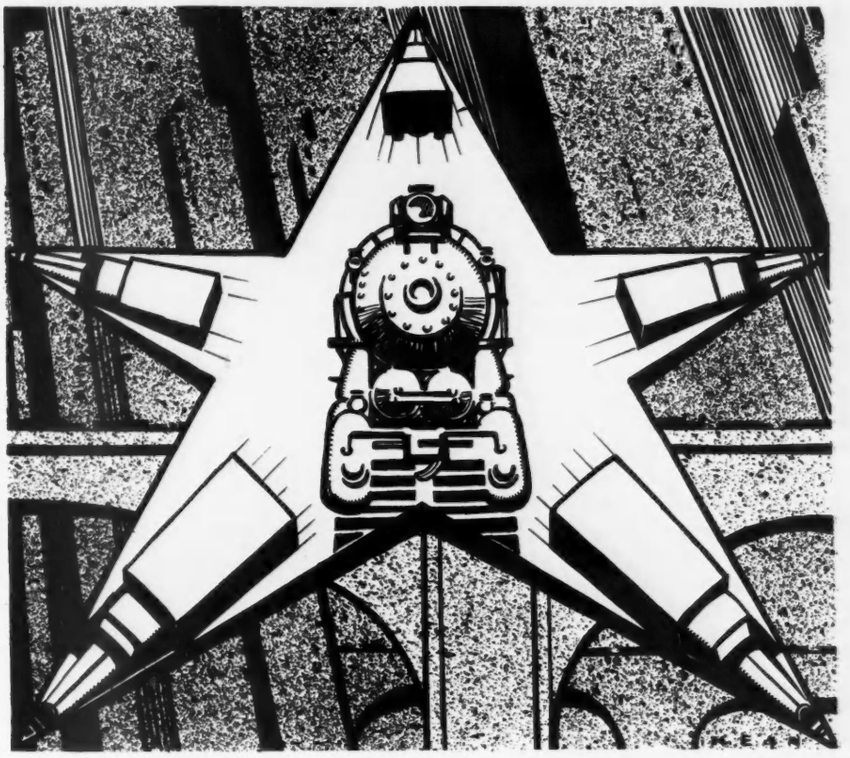
If delivery is made from dealer's own stock it shall be reported and the factory may change its billing price on such car to conform to the above.

If it develops that the purchaser does not qualify as a quantity purchaser the regular discount will be restored by the factories to the dealers who made deliveries to such purchaser.

Quantity purchaser is one who establishes the fact that his total purchases of new cars in any current and consecutive twelve months period, has reached a volume of $15,000 exclusive of transportation, delivery and handling charges, tax or price of equipment, bodies and accessories not included in standard factory specifications.

It is understood that only company owned or company controlled cars are to be considered in the total determining a quantity purchaser.

(See editorial comment, "Fleet Discounts" on page 29, this issue, based on report that above decision was pending.)



60 Railroads Now Offer Five Types of Store-Door Service

By G. Lloyd Wilson

• In this article Dr. Wilson analyzes the different forms of store-door-collection and delivery now being offered by railroads in this country, and gives typical illustrations of each. This will bring you right up to date on store-door service.

IT is difficult to make a definite statement with respect to the actual number of railroads performing store-door collection and delivery services today because of the complexities arising out of considering roads separately or as parts of systems, the difficulty of identifying and classifying railroads as parts of the general transportation system, and the perplexities incident to locating all of the isolated examples of collection and delivery services. It may be safely stated, however, that in addition to a half-dozen electric railways which may be considered parts of the national freight transportation system that perform store-door collection and delivery services, there are approximately 60 steam railways that offer store-door freight services of various types to their patrons.

• *Geographical Distribution*

Fifteen of these roads are in Eastern Territory, 13 in Southern Territory, and the rest in Western Territory. The important railroads in the Eastern Territory offering the service include: Pennsylvania Railroad, Boston & Maine Railroad, Maine Central Railroad, Reading Company, Central Vermont Railway, Bangor & Aroostook Railroad, Rutland Railroad, and a half dozen others.

The Southern Railroads engaged in performing store-door collection and delivery in connection with railroad L.C.L. traffic include: Florida East Coast Railway, Louisville and Nashville Railroad, Nashville, Chattanooga & St. Louis Railroad, Bennettsville & Cheraw Railroad, Atlantic Coast Line, Gulf, Mobile & Northern Railway, Louisiana & Arkansas Railway, and a number of other rail lines.

The Western railroads performing the services include the numerous lines parties to the Southwestern Lines store-door tariff and others offering independent service in the Northwest and Pacific Coast, including: Missouri Pacific Railroad, St. Louis-Southwestern Railway, St. Louis-San Francisco Railway, Missouri-Kansas-Texas Lines, Atchison, Topeka & Santa Fe Railway, Chicago, Rock Island & Pacific Railway, Texas & Pacific Railway, Chicago & Northwestern, Texas-Mexican Railway, Chicago, Milwaukee, St. Paul & Pacific Railroad, Chicago, Burlington & Quincy Railway, Denver & Rio Grande Western Railroad, Fort Smith & Western Railway, Kansas City Southern Railway, Kansas, Oklohoma & Gulf Railway, Great Northern Railway, Northern Pacific Railway, Southern Pacific Company, Spokane, Seattle & Portland Railroad, Spokane, International Railway, Union Pacific Railroad, and Western Pacific Railroad.

• *Classes of Railroads*

These lists are not complete but representative of the important railroads in each region which have joined the ranks of companies performing door-to-door collection and delivery services. The roads performing the services include several distinct types:

1. A number of Class I railroads, earning in excess of $1,000,000 per annum in railway operating income. About two-thirds of the railroads performing collection and delivery services fall into this category.
2. Several Class II carriers earning between $100,000 and $1,000,000 per year in railway operating income.
3. A few progressive Class III railroads whose railway operating income accounts are less than $100,000 per year each.
4. Several large electric railways which are of sufficient size and connection with other railroads to be considered important parts of the general railroad system of the United States.
5. A few terminal railways whose

sole functions are performed in originating, switching and delivering freight.

● *Types of Store-Door Service*

An analysis of the plans of store-door collection and delivery services based upon the data thus far available indicates that the services fall into several distinct types.

Many of the services are performed through arrangements made by the railroad companies with local cartage agents who contract with the railroads to collect and deliver L.C.L. freight at fixed compensation per unit of freight transported. These contracts may be made with a large or a relatively small number of cartage agents, in some cases as many as several hundred.

A second type of collection and delivery arrangement is found in the cases where the services are performed by subsidiary motor transportation companies owned or controlled by the proprietary railroads.

A third type is found in the so-called "express type" of store-door freight service in which a subsidiary company offers a transportation service including store-door collection and delivery in competition with other carriers and engages local trucking concerns to perform the pick-up and delivery services and contracts with the railroad to perform station-to-station service as the agent of the transportation company.

Another type of store-door freight service is found in the relatively few cases where the collection and delivery services are performed by the railroad companies' own motor vehicles and employees.

Finally, several railroads have entered into arrangements for the performance of store-door freight services through arrangements with the Railway Express Agency, Inc., which acts as the cartage agent of the railroad companies.

It is appropriate to illustrate each of these types of store-door freight services with a typical case.

● *Local Cartage Agents*

The best example of the use of local cartage companies as the agents of the railroads in performing store-door pick-up and delivery services is to be found in Southwestern Lines Territory, the region west of the Mississippi River, south of St. Louis and Kansas City, east of the Rocky Mountains and north of the Gulf of Mexico and the Rio Grande. In the large territory the railroads accord shippers and consignees store-door collection and delivery charges provided the freight moves approximately 300 miles or less or pays less than a minimum scale of freight rates. Additional charges are made for the collection or delivery services if the freight shipments move by rail over greater distances than 300 miles and at rates greater than the standard scale at which the collection and delivery services are performed without extra charges.

The local cartage companies with whom contracts are entered by the railroads haul the goods between the places of business of shippers or consignees and the freight depots of the rail carriers at the request of shippers or consignees. The cartage agents are compensated by the railroad companies for their services according to the basis of compensation agreed upon in the contracts.

Allowances at the rate of 5 cents per one hundred pounds are paid by the railroads to shippers entitled to free collection service if the shippers arrange for the delivery of the shipments to the railroad freight stations in their own vehicles or through their own cartage agents.

Approximately 40 railroads have cartage contractual relationships with local drayage companies to perform collection and delivery services. The number of cartage companies with whom individual railroads have contracts runs in some cases into the hundreds, and the total number of local cartage companies with whom all railroads have collection and delivery agreements runs into the thousands.

● *Subsidiary Transport Companies*

A number of railroads in the United States have organized and operate subsidiary motor transportation companies to engage in highway freight transportation services of various sorts, and in some cases these subsidiary conpanies perform store-door collection and delivery services either in connection with freight transported entirely by highway or railroad freight traffic which is given store-door collection and delivery services.

● *Express Freight Service*

Several railroad companies have arranged through subsidiary companies for coordinated motor truck and railroad freight services of unique type to meet motor competition. The subsidiary express companies offer freight service at competitive door-to-door rates, issue their own bills of lading, participate in motor freight classification and tariff arrangements, arrange through contracts with motor cartage companies to perform collection and delivery services for its account, and arrange with the railroads to transport the shipments of the express carriers upon a contract basis of compensation. Only a few railways use this form of organization to provide store-door collection and delivery services.

In a very small number of instances motor trucks owned by the railroad companies and operated by railroad employees are used in performing store-door freight collection and delivery services. One small Southern railroad extends store-door collection and delivery services to all outbound and inbound less than carload freight without extra charge at all points served by the railroad without regard to the origin or destination of the traffic. The only restriction imposed is that single pieces of freight given store-door services must not exceed 1000 lb. each in weight.

The service was installed in 1929 in order to meet motor truck competition and to accede to requests for the service made by shippers and consignees. Vehicular equipment wholly owned by the railroad and railroad employees are used in the service.

● *R.E.A. as Cartage Contractor*

Several important railways offer store-door collection and delivery services and coordinated railroad and motor truck freight services through contract arrangements made with the Railway Express Agency, Inc.

One typical service of this sort affords shippers and consignees door-to-door freight service at uniform rates upon all commodities in any quantity lots at slightly less than the prevailing third class rates. The service includes store-door collection and delivery service without extra charge. The vehicles of the Railway Express Agency, Inc., call at the places of business of shippers and transport the shipments to cars on team tracks. Here the freight is loaded into the cars by employees of the Railway Express Agency. The cars are moved by railroad service to destination where the cars are placed at locations designated by the Railway Express Agency. Employees of the latter company unload the freight to the Agency's vehicles and deliver the shipments to their respective consignees. The Express Agency is compensated for the collection, delivery, loading and unloading services by the railroad upon the basis agreed upon in the contract.

Each of the plans of collection and delivery has its ardent advocates, and all have the advantage of providing a convenient and expeditious system of handling less than carload freight at favorable rates. The restrictions imposed upon the plans, such as the limitation of free service to shipments moving within distances thought to be within the most effective range of motor truck competition, are not inherent to the nature of the contractual relationships with the cartage agencies, but to the purpose of the plans themselves.

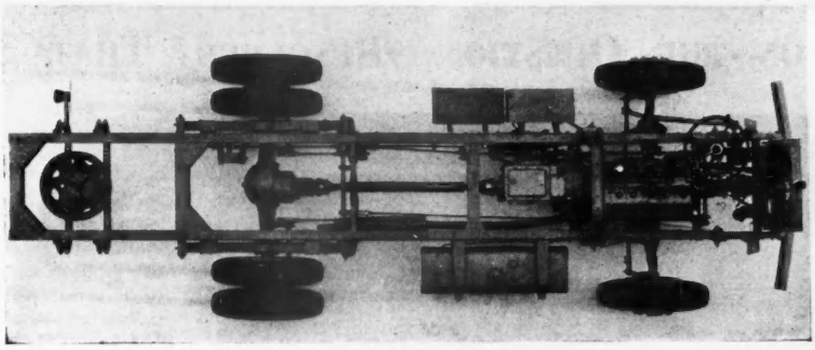


Fig. 1. Plan view of camel-back chassis

Engineering Facts Support the Come-Back of "Camel-Backs"

BY B. B. BACHMAN, CHIEF ENGINEER, THE AUTOCAR COMPANY

RECENTLY there has been a tendency toward basing truck weight regulations on axle loading, prescribing either a maximum wheel weight or a maximum axle weight. The question of gross weight is relatively given second importance, at least in so far as general opinion is concerned, even though it may not have been generally recognized to date in regulations. However, the code developed by the Motor Vehicle Administrators and also by the Society of Automotive Engineers, shows the tendency in this direction inasmuch as the axle loading is given the greater importance and the matter of gross weight is covered by a formula based on the axle spacing in conjunction with other constants which result in a permissible gross weight considerably in excess of what general practice heretofore has developed from the sum of the axle weights.

As a general rule in the past, the weight on the front axle of a two-axle vehicle has been approximately 25 per cent of the gross weight and the remaining 75 per cent on the rear. This practice was dictated by a number of considerations. In the first place, it gave sufficient weight on the front axle to insure proper steering control and yet not such a large amount as to cause hard steering with the relatively inefficient steering gears used in former years. There was also no particular penalty paid from the standpoint of tire equipment due to the fact that the practice originated at a time when solid tires were in general use and it was relatively simple to compensate for the variation in weight by adjusting the tire width. At the same time, this distribution gave a practical compromise for the wheelbase length which permitted a reasonable turning circle, and most important of all, with the relatively low coefficient of friction between solid tired wheels and the ground it placed the greater amount of the load on the rear wheels where traction was required.

THE revival of the "camel-back" design in trucks (you'll see a lot of them in 1934) is the result of legislative restrictions. In this article Mr. Bachman, who is well qualified by experience, explains the engineering effects of various axle arrangements and justifies the "camel-back" as a design which fully meets modern restrictions and modern requirements.

This article is based on a paper which Mr. Bachman presented before the Philadelphia Section of the S.A.E. and entitled "Building a Truck for the Job."

Recent developments have made it possible to reconsider these relationships which were formerly considered entirely satisfactory. In the first place, while the use of pneumatic tires increases the difficulty of steering, the improvements in steering gears which have developed out of this greater need have more than compensated for the additional difficulty, so that it is now possible to consider greater front axle loading than formerly. Also, when pneumatic tires are used it is generally considered desirable, if not actually necessary, that all tires be of equal size and with two tires per wheel on the rear end and one tire on the front end, in order to have the tires equally loaded, the relationship between the front axle and rear axle loading should be one to two instead of one to three, as was formerly the case. At the same time, the better characteristics of the pneumatic tire make it possible to operate with this lower percentage of weight on the rear axle. It is, of course, obvious that if the weight on the front axle can be increased from one-fourth of the gross weight to one-third of the gross weight, with the rear axle loading remaining constant, that there is an increase in the gross weight of the vehicle of one-twelfth or 8 1/3 per cent, and as there is not a great deal of increased weight in the chassis, most of this is a direct gain in pay load.

If it is attempted to attain this form of distribution by moving the front axle back, leaving the rear axle remain in its former position with respect to

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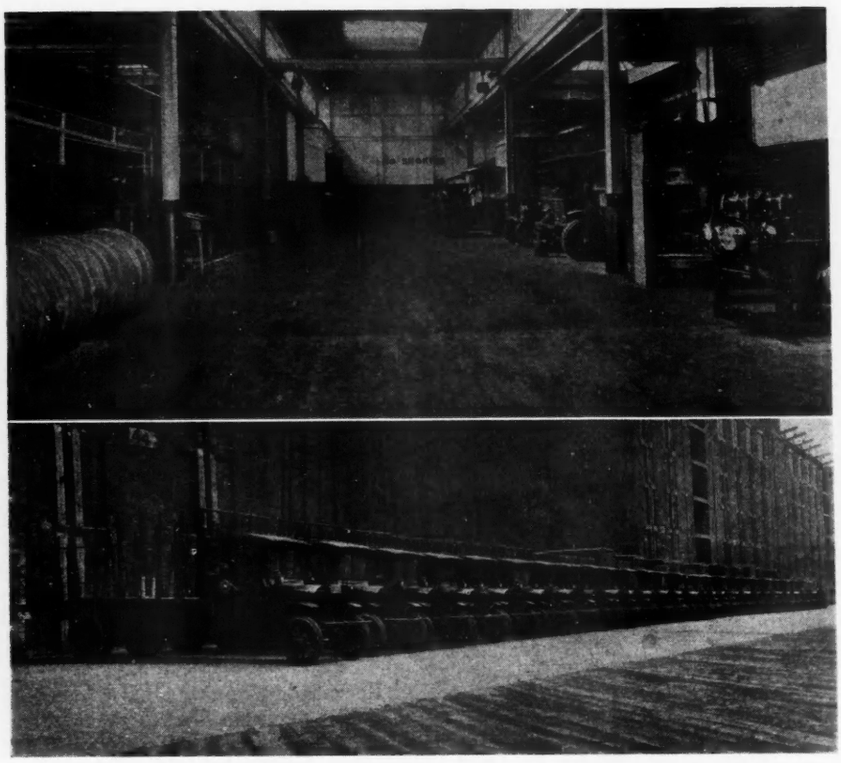

Views of the Motor Haulage fleet and part of the repair shop

Yes! In 50-Truck Fleets With 50-Mile Radius

•

IN the presentation of my remarks, I want to define fleets. Therefore, my remarks are applicable only to fleets consisting of more than 50 trucks, confined to a radius of 50 miles, operating from their base repair. I feel that it is not fair, and rather ridiculous, from an efficiency standpoint to maintain major shop practices in units of less than 50, operating within a 50-mile radius.

The character of the business influences largely that point as to whether or not one should maintain his own shops for mechanical efficiency. Take our business as an example—a commercial operator—where by the ring of the telephone we may have to change from an open cab to an armored cab—not one unit, but many—as was the case the night prohibition was repealed, when it was necessary for us to replace conventional cabs with armored cabs which we had in reserve. That kind of service is necessary to meet the requirements of our customers which also reflects reduction in the cost; whereas, if we were dependent on outside service stations, the cost involved in shuttling trucks, time consumed and delays due to lack of familiarity with the fleet would be prohibitive.

Another thing—the operator maintaining his own shops must, in order to exist, make a profit over his entire operations. He is solely dependent upon the revenue of his vehicles for a livelihood. They are not a necessary evil with him. Therefore every phase of his operation must be subjected to the most miscroscopic scrutiny in order to get the efficiency down to a matter of dollars and cents.

We will attack the question of rents, of fixed charges. I maintain that fixed charges on outside service stations are invariably higher than self-maintained service stations.

• "From a dollars and cents standpoint continue with your own service station to maintain fleets in sizes of 50, operating in a concentrated area of 50 miles radius. Below that give consideration to outside maintenance."—Mr. Lyon, Motor Haulage Co.

• "The large fleet operator who is able to spread the cost over a great number of vehicles can justify the expense of setting up the machinery and personnel for self-service. The small fleet could not and must depend upon outside service for economical maintenance."—Mr. Middleworth, Consolidated Gas Co.

BY C. S. LYON
Vice-President, Motor Haulage Co., Brooklyn

Take, graphically, the City of New York and consider any of your large service stations and where they are located. They must first be located at convenient distances, insofar as transportation is concerned and in relation to the most productive territory in which their trucks are operating, and also on prominent streets. That has an advertising value. Obviously, the rent is a great deal higher than where a man

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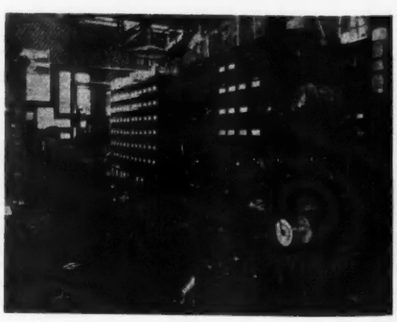


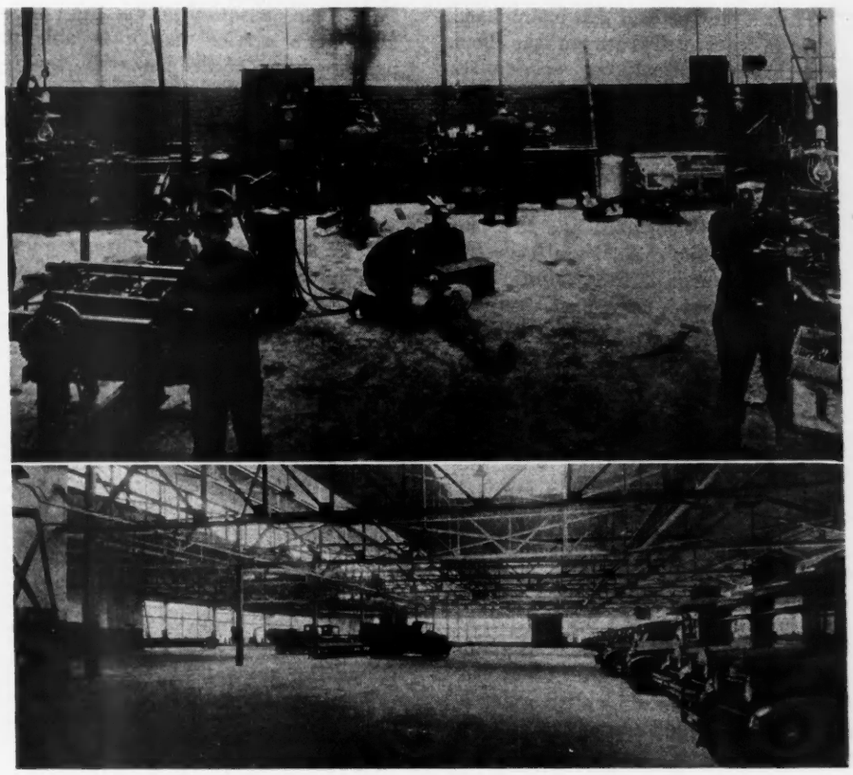
The Motor Haulage stockroom

OF FLEETS ASSURES THE MAXIMUM MAINTENANCE EFFICIENCY"

• "It is not a question of whether trucks shall be maintained in service stations or operators' own shops. It is a question whether, when and to what extent it pays fleet operators to duplicate service station facilities and activities.

• "The negative concludes that while not denying that self-service in many cases does make for maximum maintenance efficiency in fleet operation, it by no means is justified in the majority of cases, thus making the basic resolution untenable."—Mr. Horine, International Motor Co.

By M. C. Horine
Sales Promotion Manager, International Motor Co.



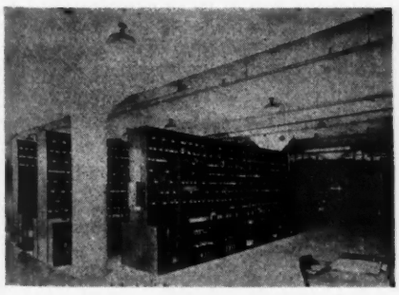
Views of a service station maintained by a truck manufacturer

No! Besides No Fleet Is Entirely Self-Serviced

•

IN the negative stand which I have been assigned, my task is merely to refute the proposition contained in the resolution for debate.

This I can and do undertake with the utmost sincerity, for not only do I deny the general statement that self-service by fleet operators is *per se* more efficient than manufacturers' service station maintenance; but I feel constrained to go further and declare that there is no such thing as self-service by fleet operators.



A factory branch stockroom

No fleet operator completely maintains his fleet on his own premises.

Neither, for that matter, is any fleet maintained completely in manufacturers' service stations, unless the trucks are garaged in the manufacturer's branch.

At the very least the operator will maintain tire pressures, attend to replenishments of gas, oil and water, flush and change batteries and do a certain amount of trouble-shooting in his own garage.

At the most, on the other hand, he will be obliged to farm out a certain amount of his maintenance work, either to the service station or to independent specialty shops.

I never have heard of an operator, no matter how many thousands of dollars he had tied up in parts, who did not depend upon service station stock for some parts, and generally a considerable number of them, confined for the most part to those which are less frequently required.

Although some owner shops go in for cylinder grinding, crankshaft trueing and main bearing work, their number is small and confined for the most part to bus operations where manufacturer service is non-existent in their territories. Sometimes attempted, but never satisfactory, is the rebabbitting of direct-babbitted connecting rods and main bearing caps in operator maintenance plants. By the exchange system now in wide use, a first-rate factory job is obtainable in so much less time and at so much lower cost that here, at least, the service station will be relied upon.

Besides the service station, specialty shops, too, are necessary for some of this work, such as magneto or distributor repairs, armature and commuta-

tor work on generators and starters, repair of voltage regulators, carburetors, air brake parts, shock absorbers, speedometers and springs.

Thus it may be said that maintenance is always divided between the home shop, the manufacturers' service stations and the specialty shops. The whole question at issue is therefore the matter of the ratio between the amount assigned to each agency which will yield the highest efficiency.

There can be no hard and fast rule in respect to this ratio if real efficiency is to be obtained; but the ratio in each case will depend upon circumstances. The best ratio will be found only by a factual analysis of all conditions existing in and surrounding the operation.

Obviously the larger the fleet, the greater the proportion of self-maintenance that will probably prove advantageous; the smaller the fleet, the greater reliance upon the manufacturers' service stations which is dictated. But, there is more to the subject than just the size of the fleet.

Concentration of the fleet is of greater importance that its size. A city bus operation represents ideal concentration, whereas a public utility or a chain store, even though its vehicles are numbered in the hundreds, usually involves such a scattered distribution of vehicles that there will be few points where a shop set-up of any extent will be warranted.

Even where 50 or more vehicles are concentrated at a single base point, it makes a vast deal of difference whether these represent one make or numerous makes; whether they are of one or two types and models or several of each.

Range of operation, too, makes a difference. A home shop means much more to a fleet operating always within towing distance of it than to one whose vehicles range through a radius of a couple of hundred miles.

• *Other Affecting Factors*

Comparisons between preponderantly self-maintenance or service station maintenance must be affected to a considerable extent by the character of service offered by the manufacturer in a particular locality. A well-stocked, modernly-equipped and competently-manned direct factory branch nearby will stack up much more favorably than a small dealership with a meagerly-stocked, crudely-equipped and questionably-manned shop, located 50 miles down the line.

Time is often a strong incentive to self-service; but it does not always go without saying that the service station, if located nearby, will take longer for a given repair. Often, in fact, due to the larger volume of work going through, the greater specialization of equipment and personnel and the better organization of the work which large-scale operation permits, the manufacturer's service station is able to beat the time of the home shop without recourse to unit interchange.

Also, in many operations, by reason of spasmodic flow of trucking volume, proper planning in advance can avoid the necessity of so much hurry.

Claims of economy in self-maintenance are often subject to some question in consideration of the peculiarities of accounting sometimes practiced. The investment involved in the buildings, equipment and stock of a maintenance plant capable of performing the bulk of the maintenance work for a large fleet is great; as those operators who are responsible for them know.

• *Equipment Outlay Heavy*

If the work is to be done efficiently and cheaply, quickly and well, then for each operation more or less elaborate equipment must be provided, even though the volume of each kind of work is small. A cylinder grinding outfit, which in a fleet of 100 trucks might be called upon to work 10 full days per year, costs nearly as much in overhead as its twin brother in the manufacturer's service station, which works 300 days a year.

Low final cost of work is not consistent with high unit overhead. I strongly suspect that where the figures fail to show this up, the proper separation of shop overhead from the general accounts of the house has in many cases been overlooked.

With such testimony as given by Mr. Lyons, of course, there can be no such difficulty, because motor haulage is his whole business. There are no unrelated general accounts in which to confuse overhead items and the heads of his company have been associated with it too long to come under the suspicion of making a showing by skimping the quality of the work done.

How many other operations are there so favorably placed as to size, concentration, standardization, restricted operating range and competence of management? In setting down the factors which would indicate self-service as the best policy, I was conscious of practically describing the Motor Haulage operation. They are:

Large fleet—200 or more vehicles. Concentrated in one location. Standardized on a few makes and models. Operating range restricted to immediate vicinity. High continuity of operation—non-seasonal. Highly-developed maintenance system—preventive, unit-overhaul system. Accounting system designed solely to present required picture. Competent management and personnel—specialists in motor transport.

On the other hand, it would not be difficult to picture another type of operation, even with a fleet of equal size, in which self-service would be an exceedingly questionable procedure. Such would have such characteristics as:

Same size fleet, but: Vehicles scattered in little groups over a wide area. Each vehicle operating on long routes, taking it long distances from its home garage. Fleet composed of variety of makes and models. Volume of haulage subject to seasonal fluctuations. Maintenance precarious — mostly remedial because shops are too small to organize on preventive maintenance basis. Scattered location makes large central repair depot impracticable. Overhead items and supervision lumped for all departments in general accounts. No isolation of truck maintenance items possible. Trucks under management of local managers with little experience or interest in motor transport. Shop personnel of low grade—no specialists.

Such operations cannot justifiably pursue any other policy than dependence upon manufacturers' service stations for the greater part of their maintenance, relying upon a qualified superintendent of motor vehicles to coordinate purchase, operation and maintenance in the various localities.

How many concerns using large numbers of typewriters, for example, attempt to maintain them in their own shops, with their own mechanics? Do big department stores, using many hundreds of cash registers dispense with manufacturers' service? Do the insurance companies with their extensive calculating machine equipment use self-maintenance?

• *Policy Once Practical*

There was a time when self-maintenance was a more practical policy for numerous operators than it is now. When maintenance was principally remedial rather than preventive and periodic general chassis overhaul was predominant, large fleets could so plan the overhaul work as to keep a complete set of shop departments supplied with reasonably constant work and could perform a general chassis and body overhaul in a minimum of time and often most economically.

Today, however, with unit overhaul decidedly in the ascendancy among large fleets, the elaborate shop equipment required for the general overhaul is no longer necessary; for aside from running repairs, lubrication, inspection and adjustment, it is merely necessary to have suitable facilities for unit interchange to achieve the minimum time

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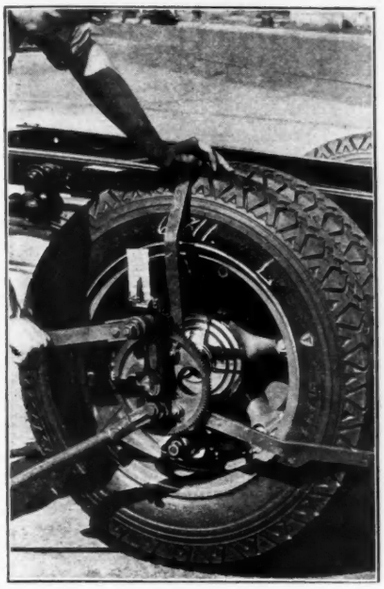
$ALVAGE—From a Shop Man's Mail

Being the impressions and reactions of an experienced shop man to new products offered by manufacturers. The editor will gladly put readers in touch with the makers mentioned.



Portable Brake Tester

A brake tester which weighs only 32 lb. and may be carried to the vehicle on which the brakes are to be tested is offered by Little Giant Products, Inc. It can be applied to single or dual wheels on passenger cars, trucks or trailers. As the wheel is jacked up, the pedal depressor applied, the tester is attached to the wheel and the wheel is rotated by a crank until the brakes are set and the resistance of the brake is indicated by pencil on a record card which is attached to an arm on the tester. The makers are ready, willing and anxious to give further information.

Polymerized Lubricant

Sta-Put Lubricants, recently announced by the E. F. Houghton Co., are made of pure mineral oil which is polymerized to increase the film strength. The process is not yet being applied to engine oils, it being used in making gear lubricants for truck transmissions.

Gatke Has Openers

The Gatke Corp. announces production of a complete line of moulded timing gears for automotive service. The gears are made of cross laminated fabric and a specially designed steel hub is used in mounting the web to prevent loosening. A special process of construction of rim and accurate machining provide uniform teeth and prevent noise.

A second new product is a heavy duty surfaced woven brake lining. It has a close weave compressed to great density and is impregnated by an improved method. The surfacing provides 10-CG. as the new lining is known, with uniform braking qualities like a moulded lining. It is furnished in 50-foot rolls and in special sets for Mack trucks.

Crankcase Drainer

"Sharpsville Five-Minute Oil Changer," made by Sharpsville Boiler Works Co., sucks oil from an engine crankcase through the filler hole, instead of allowing it to drain from below and thus gives the mechanic or inspector a chance to see the oil as it is drained out of the crankcase and to return it to the crankcase if it is found to be fit for further service. The oil is drawn into a glass tank where it can be inspected. If the oil is to be changed, the attendant throws a switch and the apparatus flushes the crankcase. If the oil is in good condition, a reversible pump forces it back into the engine.

Invisible Glove

Magnus Skin-Gard is a dry invisible protective film to rub upon the mechanic's hands to protect the skin while working on repairs. The makers say that the film protects the hand like a glove until it is washed off with water. The maker is Magnus Chemical Co.

Impco Governor

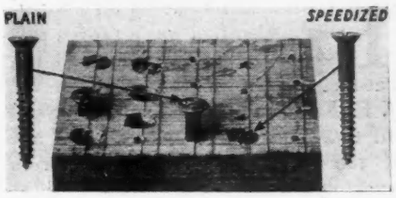
The Impco Governor, made by Imperial Devices Co., is offered in two sizes, 1 in. and 1¼ in., at $5.50 list. Either model is adapted for up or down draft carburetors. After installation is made, it is sealed with a wire and car seal, and guaranteed for two years.

"Electro-Pak"

B. F. Goodrich Co. presents the "Electro-Pak," an automobile storage battery of distinctive new design. All metal parts of a battery, formerly exposed, are completely covered by a hard rubber case. Water can be added without removing the cover.

Speedized Wood Screws

For body builders and others who have to drive wood screws in hard wood, the



Elco Tool & Screw Corp. offers a block test comprising a small hard wood block and some sample screws, plain and speedized. Speedizing is a chemical treatment for the screws which reduces the power required to drive them into the wood. The makers will be glad to send a block to any executive concerned with the purchasing of wood screws in quantity. We'll forward your name if you'll write us.

We Repeat an Offer

Last month a great many readers wrote in for the valuable publications listed below. We are repeating this free offer for the benefit of readers who may have overlooked it last month. Check any or all of the books and mail the order blank to the Salvage Department, Commercial Car Journal, Philadelphia, Pa.

Please send me the following

Free Books

(Check numbers wanted)

- ☐ 1. Ball Bearing Service Manual.
- ☐ 2. Crankshaft Bearing Catalog.
- ☐ 3. Aluminum Body Data.
- ☐ 4. Clutch Plate Book.
- ☐ 5. Armature Book.
- ☐ 6. Wheel Catalog and Handbook.
- ☐ 7. Wiring Catalog.
- ☐ 8. Bolt and Bushing Catalog.
- ☐ 9. Hydraulic Jack Catalog.
- ☐ 10. Tire Valve Data Book.
- ☐ 11. Cam-shaped Pistons Book.
- ☐ 12. Screws, Bolts, Nuts Catalog.

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BUTANE

The new motor fuel

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By Joseph H. Beardsley

Manager of Sales, Butane Sales Co., San Francisco

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THE use of butane as an internal combustion fuel was a proven success more than two years ago, but that fact was not generally made known. T. H. Kruttschnitt, then with the Shell Oil Co., made exhaustive tests on one of the units of a major California trucking company. The results of these tests were so successful and the officials of the trucking company were so well pleased that plans were made to convert their entire fleet. However, visions of a very appreciable decrease in their operating costs were soon dimmed. Using butane was one thing; getting it was another. Due to a limited supply, virtually all of which was being disposed of in commercial markets for heating and cooking, it was decidedly impractical as a motor fuel.

In the meantime Mr. Kruttschnitt left Shell and formed his own company, now known as the Butane Sales Co. Through an arrangement with Shell for the manufacture of butane, the supply is now fairly plentiful. Other oil companies, also, have since equipped their refineries to help take care of the ever increasing demand for butane fuel. The sale of butane, which is largely produced on the Pacific Coast, was at first mainly confined to that area, in which it was shipped to the consumer in rail tank cars or tank trucks. Now, following a recent visit by Mr. Kruttschnitt to eastern centers, arrangements have been made to distribute it in all parts of the country.

The first butane tests of any consequence were made by the Southern Pacific Co. on one of its rail motor cars. The car in question is equipped with two Hall-Scott engines designed for 600 hp. In burning distillate the operation of these engines was not entirely successful. The fuel costs were low, of course, but the obnoxious fumes from the exhaust were a constant source of annoyance and cause for complaint. The car had no starting torque and as a result was running much of the time on delayed schedule. Passengers naturally hesitated to travel in a con-

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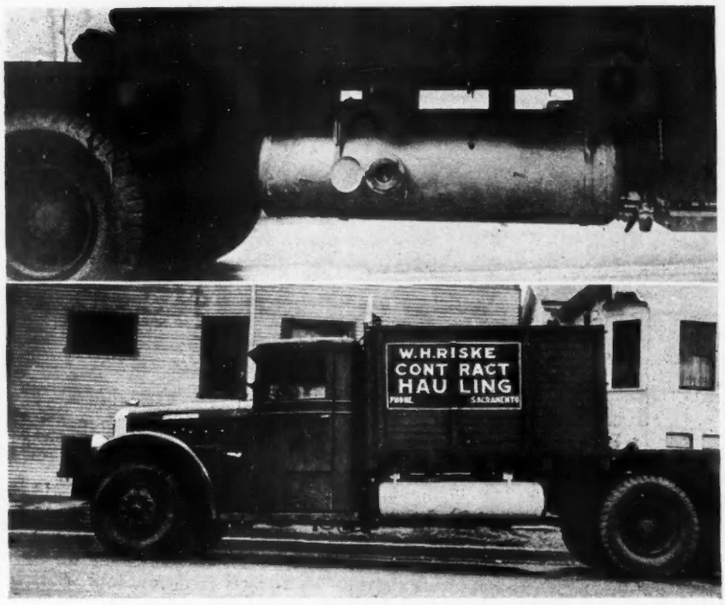


The two views above show how the butane tank is slung under the truck chassis. The top view shows the latest type of tank equipped with metering gage.

West Coast Fleets Using Operating Cost Savings;

By Clarence Ebey, Commercial Car

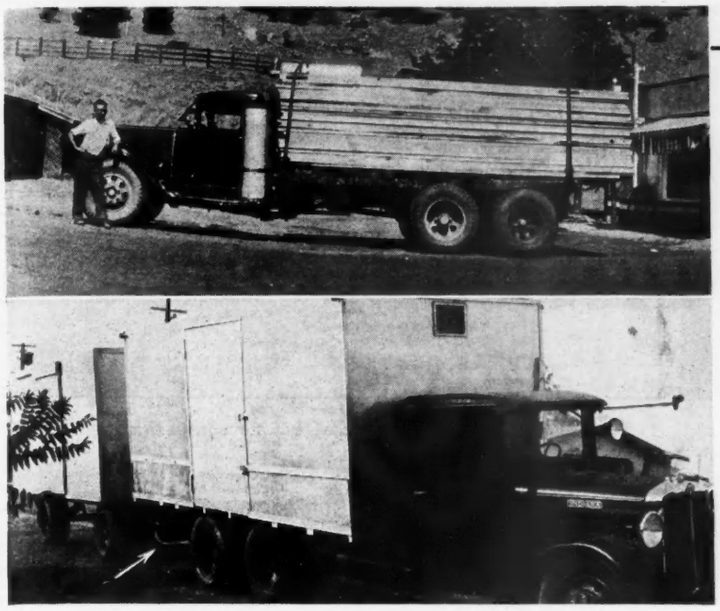
AUTOMOTIVE circles of the Pacific Coast, especially the trucking industry, are all agog over the new fuel, butane, or Bu-Gas, its trade name, and gradually the circle is being widened to include the whole United States.

The use of butane has various prospects and wide future possibilities, some of which are almost astounding, but its chief claim to attention now and probably its future most powerful bid for favor consist in its cheapness. It may or may not upset the entire gasoline and oil situation because of the moot question as to whether oil shall be transformed principally into gasoline or into butane; it may or may not steal Diesel's "thunder" in the shape of economical operation; it may or may not leap into the foreground as the principal factor in the field of air conditioning for railway coaches and motor buses. It may do a score of things that are not even envisioned now, but what is centering the eyes of the automobile and especially the trucking world upon it today and doubtless will continue to do so for a long time to come is the fact that it can be bought for 3½ cents per gallon at the refinery, and that its delivered price (tax paid) ranges from 7½ to 8 cents per gallon as compared with the price of from 15 to 18 cents which first-grade gasoline brings in California.

It is true, of course, that many fleet operators and individual truck owners do not use the first grade of gasoline, but buy a second or third grade, or even distillate, while some get best gasoline in quantities at lower rates, so that the vast saving which at first glance appears to be possible is not

An Impartial Report

On these and succeeding pages Commercial Car Journal presents the results of its investigation of the use of butane as a fuel in motor trucks on the West Coast. It is an impartial report of all available particulars. We know the industry is interested because of the requests received for more facts since butane was mentioned in the November Ear-to-the-Ground Department.



The obsolete practice of locating the butane tank alongside the cab is shown in the top view. In the lower view the arrow points to the butane tank.

Butane Testify to Large Future of Fuel Clouded

JOURNAL'S SPECIAL CORRESPONDENT

realized in the majority of instances.

The quoted price of butane is at the refinery, and to this figure of 3½ cents per gallon must be added the freight, which varies according to distance but in general may be said to amount to from 1 to 1½ cents per gallon, since there is a refinery within from 100 to 200 miles of most places in California. Besides that, there is a state tax of 3 cents per gallon. The Federal tax of 1½ cents per gallon is not imposed. It should also be remembered that there is an increase in power, estimated by some butane carburetor manufacturers at about 25 per cent, an asserted elimination of vibration and an absence of carbon and crank-case dilution, with their consequent beneficial effect upon operating and maintenance costs.

But let us look at the situation, as far as possible, in actual or estimated figures. The Butane Sales Co. of San Francisco, although like other concerns it announces, as a general rule, "prices on application," because of the wide variance in truck conditions, maintains these general prices for equipment of a truck, providing for a fuel capacity of 80 gallons: Atlas mixing valve (carburetor), in four sizes, $75; two pressure regulators, in two sizes, according to horsepower of motor, $15; butane vaporizer, $35; two tanks, $30 and $27.50; set of valves and fittings for tank, $22; butane gage, $35. For fuel capacity of 160 gallons the prices are $1 more for the pressure regulators and $10 more for each tank. The total prices for a single installation, respectively, are $239.50 and $260.50, with a discount of 7½ per cent for lots of five or more.

This company installed its equip-

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An Oil Man Speaks

"There is no question but that butane will fit in somewhere in the economic picture, but just where and what its place will be, no one can say at the moment. The Standard Oil Co. is considering the entire matter very earnestly and there will be a decision in a few weeks."—D. D. Purrington, in charge of butane sales for Standard in San Francisco territory.

BUTANE
Its use in trucks

BY H. W. HOWARD
Zone Manager, General Motors Truck Co., San Francisco

MOTOR truck operators in California have been carrying on some interesting experiments during 1933. Some fleet operators, whose truck mileages are large, are primarily responsible. Their fuel cost is a mighty important item and they have tried two things to reduce this expense.

Some few have tried diesel engines, but here they found the first cost high. The motors were very heavy, vibration was excessive at low speeds, the fumes objectionable, mechanics were not familiar with them, etc. Their diesel fuel costs were less than half that of gasoline, but they could not escape the disadvantages mentioned.

A larger number of operators have been equipping their trucks to use Bu-Gas. By using Bu-Gas they have reduced their fuel cost to that of diesel-powered jobs and have escaped the disadvantages of diesel motors. They have discovered that Bu-Gas not only cuts their fuel cost but offers other advantages.

Operators report that in addition to cutting their fuel costs at least one half, they find their motors developing more power, taking grades in at least one higher gear; also there is practically no carbon deposit and no crankcase dilution.

In using Bu-Gas the only change made in a gasoline engine is to increase the compression ratio by installing a high compression head and so far we have not found it necessary to use a high compression piston. Our GMC motors have ordinarily a compression ratio of 4½ to 1, but for use with Bu-Gas this is increased to 6½ to 1. In some cases the regular carburetor is used, in other installations the carburetor is replaced by a mixer.

The other special devices required are a pressure fuel tank, heat exchanger and pressure regulators. A motor truck can be equipped to use Bu-Gas for under $200, or about one-tenth the cost of diesel installations.

There are a number of manufac-

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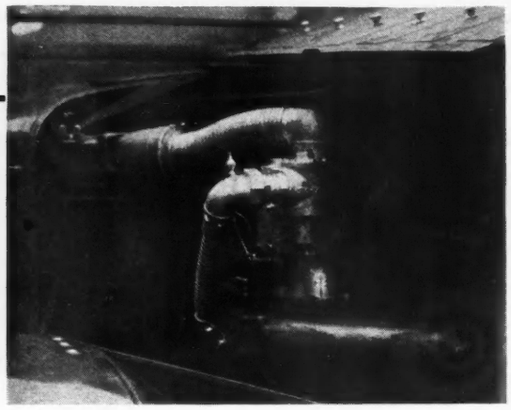
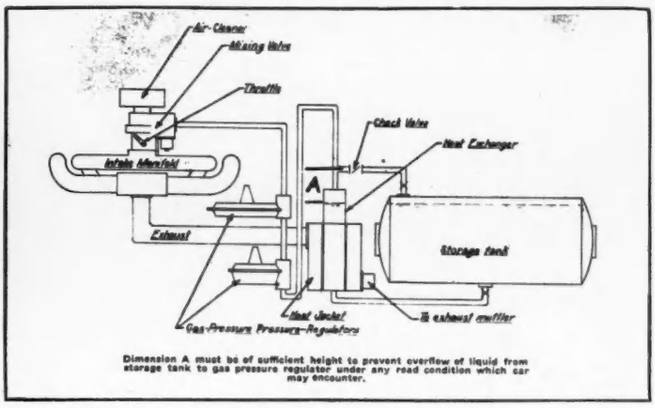


Close-up of Atlas-Imperial mixing valve



Schematic installation of butane equipment

Carburetors Designed to Gas Engines to Use of

THERE are a number of carburetors, or mixing valves, on the market for the use of butane, including the Ensign, the Atlas-Imperial, the Holzapfel, the Barton Brown and one or two others.

Joseph H. Beardsley, sales manager for the Butane Sales Company, has this to say for the Atlas-Imperial carburetor, or mixing valve, as he prefers to term it, which his company markets:

"Our mixing valve is different from others because it has no moving parts, such as needle valves, diaphragms, float balls and so on. The gas enters through a side orifice and is ratioed with air through a regular carburetor venturi and thence carried to the engine manifold. The engine is started on an idle adjustment and is then switched to a high speed adjustment. No choking nor priming is necessary, because butane gas affords complete combustion, as against the incomplete combustion which gasoline permits.

"To further explain: In our equipment the butane goes from the fuel tanks underneath the car into the vaporizer as a liquid, is heated by the exhaust gases and leaves the vaporizer as a vapor. It then goes to the first pressure regulator, which reduces the pressure from about 85 pounds to 3 pounds. Then it is taken into the second pressure regulator, which still further reduces it to one-half-inch water column pressure. From there it goes directly to the mixing valve, to be mixed with the air, after which it is ready for use as power.

"The initial cost of installing the equipment is virtually the only one along that line, as there is nothing to get out of order and the mixing valve and other equipment will almost last forever."

An official of the Ensign Carburetor Co. of Huntington Park, Calif., has this to say:

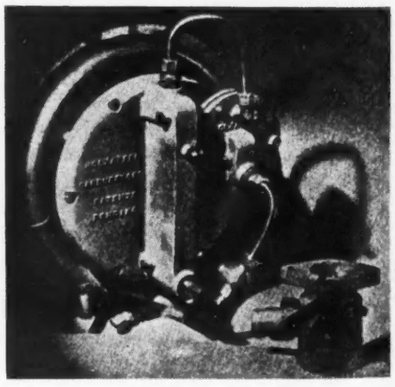
"The Ensign equipment is comprised of four separate units, a pressure reducing valve, a heater and controls, a gas pressure regulator and the carburetor. As the pressure developed by the liquid butane in the storage tank varies with its temperature and may therefore show a fluctuation of 100 pounds or more, it is apparent that, to govern the flow, pressure from source of supply must be controlled. This regulator Ensign installs between the supply tank and the heater. The regulator governs the flow and pressure of liquid butane between the tank and the heater.

"Liquid butane must be changed into a gaseous fuel to be available for use. To accomplish this it must be heated. The heater uses the engine exhaust, which is adjustable and thermostatically controlled, so that temperature may be said to be held within 15-deg. limits.

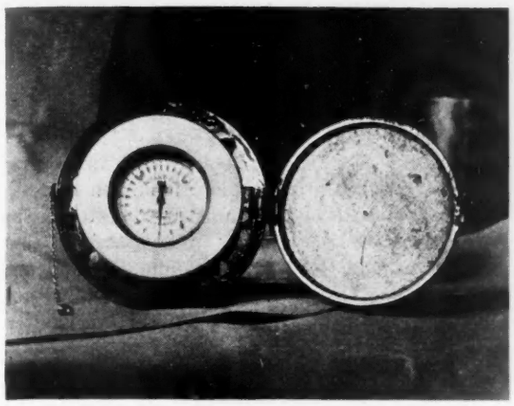
"Our gas pressure regulator holds the butane gas pressure supply to the carburetor constant with extreme accuracy. Pressure on the carburetor side is controlled to a point which is slightly below atmosphere. Without such control, accurate metering by the carburetor cannot be accomplished. The diaphragms of the regulator have no gas pressure against them when the engine is not running, nor does the regulator flow gas then. Valves in the regulator remain closed except when suction is applied from the carburetor.

"The carburetor is of the plain tube type. It has no moving parts. It produces correct mixture of butane gas and air at all loads and speeds on all types of engines. It carries our well known balance tube device. There is a primer, installed on the regulator, to supply the carburetor with gas for starting. Gas to idle motor is made by a connection direct from regulator to the manifold, above the carburetor. Idling adjustment is provided, located at the top of the regulator. Carburetor adjustments, once made, will remain uniform.

"As the efficiency of butane is in direct ratio to engine cylinder compression, it is not practical to adapt engines with cylinder compression at 65 pounds or less. Compression preferably should be not less than 100 pounds. The octane rating of butane is 120 and there is no detonation.



The Holzapfel butane carburetor. Complete unit is shown



Close-up of Butane Sales Co. fuel gage

• This article describes four carburetors available to those who wish to use butane as fuel in their trucks. It supplements with technical information the articles on the previous two pages.

• Next month we will publish an article in which the chief engineer of the Atlas-Imperial Diesel Engine Co. compares butane with diesel power and warns prospective butane users of the pitfalls to be avoided.

Convert Butane

"Compression in overhead-valve motors may be raised by installing high-altitude pistons. In L-head motors cylinder heads may be milled, or higher compression heads secured. There is no crankcase dilution. It may be advisable to install upper-cylinder oiler for engines running at constant speed from three quarters to full load. Combustion is achieved without smoke or odor."

The Barton Brown Engineering Corp. of Los Angeles, makes a butane converter and also a gas-air mixer, to be used in conjunction. A company official makes this statement:

"The Barton Brown converter takes the place of four separate pieces of apparatus used in other systems, i. e., a high-pressure liquid regulator, a low-pressure vapor regulator, a heat exchanger and an oil-pressure automatic shut-off for butane.

"In our equipment the gas vapor is shut off automatically in the mixer when the engine stops, by means of the weight of the air float, resting on a valve seat on the surface of the gas-metering tube. The Barton Brown regulator controls the liquid and sprays it onto a hot spot, heated by the exhaust gases, where it is converted from a liquid directly to a cool vapor. The pressure of the vapor is maintained at approximately one ounce pressure and does not vary a fraction of an inch, water column pressure, during operating. This regulating valve cannot freeze and is self-cleaning. There is an auxiliary control, operated by a Sylphon bellows, by which the lubricating oil pressure shuts off the butane when the engine stops, or if it should run out of oil. Upon the issuance of the liquid butane from the spray nozzle, a large part of it turns into a vapor which is *not heated*. The remaining liquid particles are transformed into a vapor by coming into contact with a hot spot.

"The Barton Brown gas-air mixer automatically shuts off the gas when the engine stops. The engine does not flood with gas. In case of a back-fire, the mixer automatically closes. Because of the opening of the gas and air orifices simultaneously and at the same ratio, the gas-air mixture remains constant at any set point. Changes in the B.T.U. gas content may be compensated for by a simple adjustment on the mixer. Should air conditions change due to altitude, this likewise is easily adjustable.

"There are no flat spots in operation. There is more power and acceleration. Carbon deposits are eliminated. A cold engine will start easily. There are no packing glands. There is only one needle valve. Fuel cost is cut from one-third to one-half."

Officials of the Holzapfel Instrument Co., Los Angeles, have this to say of their equipment:

"Our compound regulator provides a supply of fuel gas, at an absolutely constant pressure, regardless of the pressure in the fuel tank, a matter of extreme importance for starting, idling and overall economy.

"Our heat exchangers may, if desired, be mounted direct on the exhaust pipe, but we recommend that they be mounted on a rigid base, removed from the vibration of the engine. Connections to exhaust and carburetor may then be made by means of flexible tubing. Thus, by avoiding the possibility of broken fuel lines and consequent leakage of gas, absolute safety is assured, especially important where the engine runs unattended.

"The fuel consumption to be expected with butane depends somewhat upon the type of engine and degree of compression. It varies from four-tenths to five-tenths of a pound per horse-power hour."

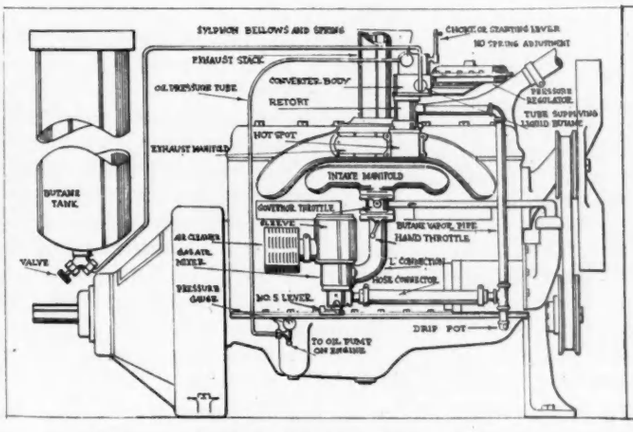


Diagram of Barton Brown mixer and converter

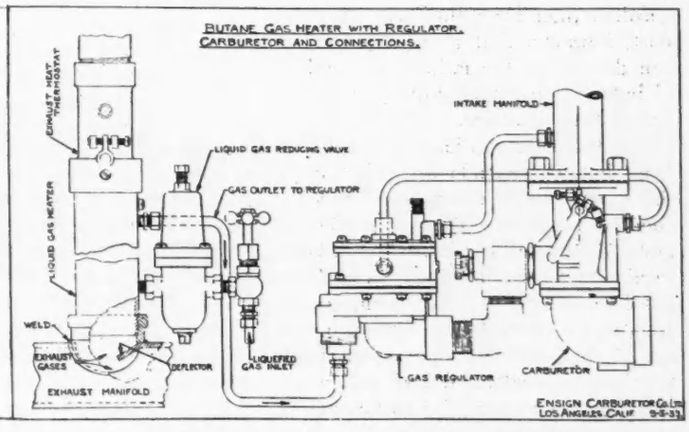


Diagram of the Ensign carburetor installation

Butane—Its Use In Trucks

(Continued from page 19)

turers in California now making converters that make possible the use of Bu-Gas in gasoline engines. Since the use of butane in trucks is a relatively new development, these manufacturers are making minor changes in their devices as experience is gained. Some of the truck operators have apparently secured better results by combining some features of each manufacturer and in several cases have developed improvements of their own.

Without going into detail, here is how the Bu-Gas is converted from a liquid into a gas, mixed with air and passed into the combustion chambers:

The butane, or Bu-Gas, goes as a liquid from the storage tank on the truck, which is placed underneath the vehicle, to the heat exchanger, which is a pipe surrounded by a heat jacket, through which is circulated heat from the exhaust manifold. There the liquid is gassified, as the required latent heat of vaporization is supplied. Now as a gas it goes through the gas pressure regulator where the pressure is reduced so that it will barely flow into the mixing valve or carburetor. There it is mixed with air and goes through the throttle into the intake manifold.

A couple of fleet operators have connected the tube from the regulator directly into the base of a regular gasoline carburetor. By use of necessary shut-off valves they can use either butane or gasoline. By this arrangement gasoline can be used for starting in cold weather or in emergencies, should the butane be used up when the truck is away from a butane base of supply.

● *Butane More Efficient*

Bu-Gas contains 102,000 B.T.U's per gallon, while gasoline will run about 129,000 B.T.U's per gallon. From this it would seem that the operator should secure more miles per gallon from gasoline than from Bu-Gas. They report, however, that as nearly as they can determine, the mileage per gallon of butane is practically the same as received from gasoline.

The fuel consumption to be expected from butane depends somewhat upon the type of engine and the degree of compression used. There is a 600 hp. motor driven rail car in service in California that was changed over from gasoline to butane. The compression ratio was increased from 4 to 6 to one, and it was found that one gallon of butane was equivalent to 1.16 gallons of gasoline. There was also an absence of crankcase dilution.

It is therefore apparent, since butane has fewer B.T.U's per gallon than gasoline, that more of the butane heat units are used, due in part to a better mixture and more complete combustion.

At the present time Bu-Gas is secured from casing head plants in California gas producing fields, Kettleman Hills gas for example containing a large percentage of butane. At these plants the gaseous mixture coming from the wells is captured and from it is secured what is commonly called "casing head gasoline," then butane and propane is separated out leaving the natural gas that is sold for ordinary commercial use.

● *Contract for Supply*

Butane from this source is available in large quantities. Several fleet operators have a five-year contract for their butane requirements, with some of the major oil companies, at 3½ cents per gallon F.O.B. the casing head plants. Finding the use of butane growing more rapidly than anticipated the oil companies have tightened up on their contracts. In some cases they have cut down on the time element, in other cases set up a sliding price scale dependent upon the price of gasoline.

Here is what this price of Bu-Gas means to one truck operator in Central California. His Bu-Gas costs him 8 cents per gallon. (3½ cents at Kettleman Hills, 1½ cents transportation and 3 cents State Tax.) His gasoline costs him 16 cents per gallon. On a 500 mile round trip he uses 130 gallons of gasoline, a fuel cost of $20.80. Using the same amount of butane he saved $10.40 per trip—and made better time. His saving in fuel cost in one month (on 12 trucks) was $1,298.

We hear much of air conditioning these days. Some motor coach lines will no doubt want to cool their coaches. More and more refrigerated truck bodies will be used to preserve perishable products. Liquefied butane can be made to serve a double purpose. It can be used as a refrigerant first and then used as the motor fuel. D. W. Davisson and F. G. Welke of the Shell Oil Co. conceived and patented such a system several years ago. Surely such a device presents real possibilities.

● *Depends on Oil Firms*

Summed up it would seem to depend upon the oil companies as to how widely Bu-Gas is used as a motor fuel. Many truck operators in California will tell you it operates better than gasoline. There are still a few details to work out from an operating standpoint but they are minor. Butane has possibilities as a motor fuel and it is a money saver.

Butane—The New Motor Fuel

(Continued from page 18)

veyance that promised such discomfort and such delay in reaching their destinations. The railroad, therefore, was open to almost any suggestion that would lead to the elimination or even the amelioration of such a condition.

In order to burn butane the engines required special equipment, i. e., mixing valves, heat exchangers and tanks constructed especially to handle this new fuel. From a number of mixing valves on the market, perfected after various experiments and tests by the manufacturers, a valve manufactured by the Atlas-Imperial Diesel Engine Co. was selected. This valve mixed the air and gas in proper proportions necessary to operate under any speed or load.

The following results were noticeable: The entire elimination of obnoxious fumes, as the exhaust gases were practically pure carbon-dioxide; increase in power up to 826 hp.; positive acceleration and deceleration; no detonation, no carbon and no crankcase dilution. One gallon of butane was consumed per mile, as compared to 1½ gallons of distillate, and the car ran 14,000 miles on 1½ gallons of lubricating oil. Previously 12 gallons of oil had been used every 800 miles.

Needless to say, the Southern Pacific Co. was well pleased. It is now converting its entire rail motor fleet to permit the burning of butane.

● *Conversion Not Costly*

For use in trucks and buses the same equipment is applicable, except that engineering detail is not a factor. Mixing valves are manufactured in accordance with the specification of the engine. The expense of converting a unit is comparatively small. Comparable figures on truck and bus operation show savings of from 30 per cent to 45 per cent for butane-operated vehicles over those using gasoline at present costs. These figures include fuel, lubricating oil and maintenance, the latter due to the high octane value of butane. (Octane rating is 120—Ed.)

Bu-Gas (the trade name for butane) is a liquified hydrocarbon consisting of butane (C^4H^{10}), iso-butane, and a negligible amount of propane. It is free from water and injurious sulphur compounds and for all practical purposes may be considered as butane of commercial purity, having in general the following characteristics:

Vapor pressure lb. per sq. in. gage: At 70° F., 33; at 90° F., 53; at 100° F., 65; at 105° F., 71; at 130° F., 110.

(Turn to page 26, please)

Above are shown some of the types of vehicles in the Armour fleet

At left is a reminder of what the fleet unit was in the old, old days

The Fleet Manager's Problem Today Is to Make Trucks Earn More

By Fred L. Faulkner
Automotive Department
Armour & Co., Chicago

•

COMMODITY prices under the NRA are constantly going higher and consequently it is natural to expect an increase in truck operating costs.

In this extremity, Mr. Faulkner rightly argues, it is the fleet manager's job to increase the efficiency of his entire operation and that, briefly, means that he must try to get the maximum in earning power out of his vehicles.

In this article he tells how to go about this important job.

ALL of us at the present time are confronted with a very complex problem, the most important phase of which is the constantly increasing total cost of motor vehicle operation. Due to constantly increasing commodity prices and gradually increased usage, it is natural to expect an increase in the total truck operating expense.

Our problem then is not one of the efficiency of the individual unit, but one of the earning power of these vehicles and the necessity for study as to the proper usage of the equipment. A motor truck operating empty as a unit possibly could be running at maximum efficiency from a cost per mile standpoint. From a standpoint of earning power, its efficiency would be zero.

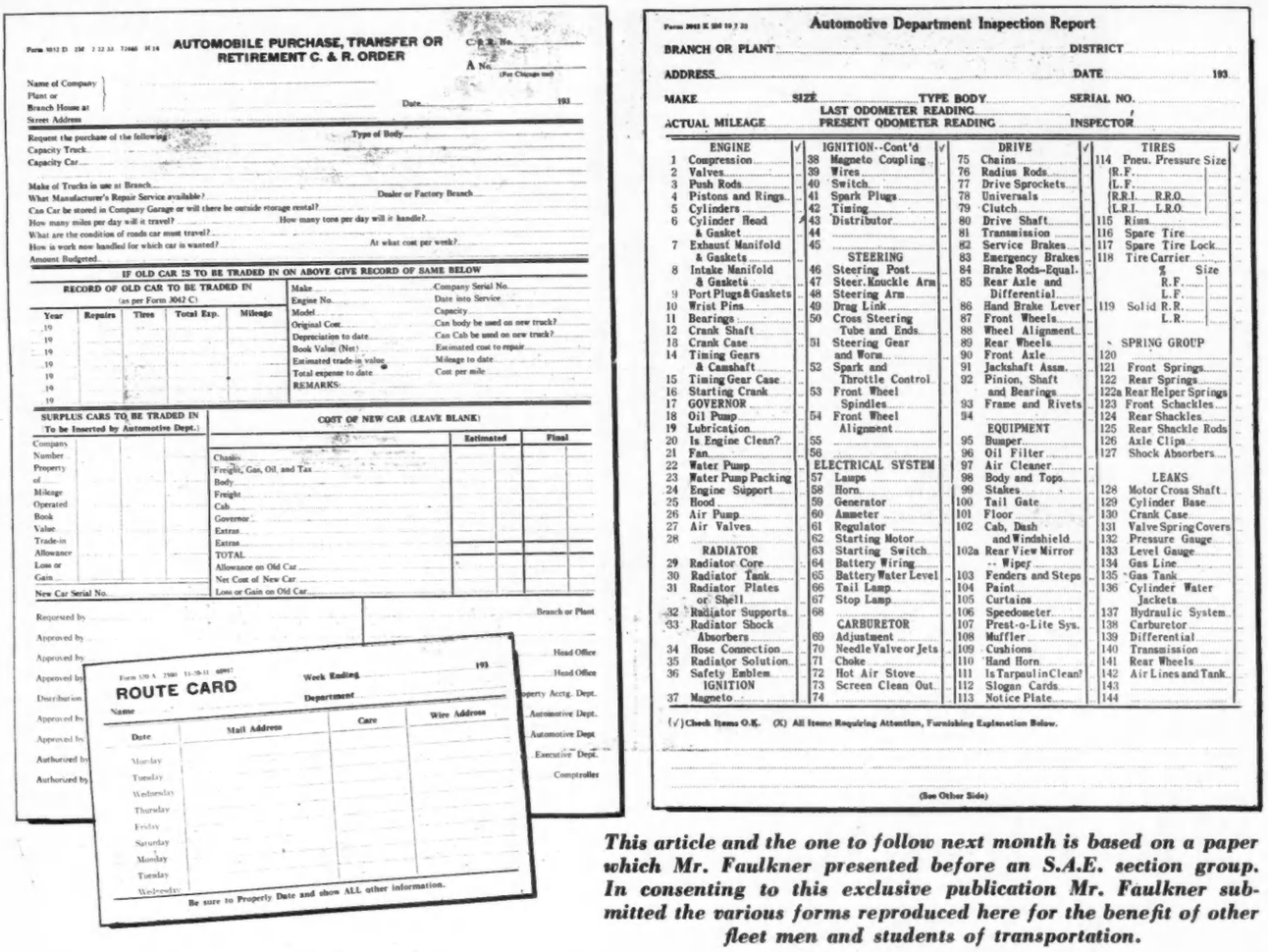
For a number of years each division of our business operated its motor vehicles on a separate and distinct basis. The automobile department, as it was then called, acted entirely as a functional department, and had little or nothing to say as regards the actual operation of the equipment. This method of procedure was inefficient and costly. Standardized methods could not be employed, proper consideration was not given to field service, route requirements, etc. The automobile department was functioning more or less as a statistical department on costs of operation. Little of this data, however, was effectively translated into operating performance.

Broadly stated, the problem before the automobile department was to secure the greatest efficiency in operation with the least turn-over in capital investment for equipment.

By efficiency in operation is meant the procuring of most service possible per truck under the local conditions of operation where the truck is applied.

By the least capital turn-over is meant reducing to a minimum the number of times the original investment in motor trucks and parts is renewed through the purchase of replacement equipment.

Since the automotive department was created it was charged with the responsibility of:



AUTOMOBILE PURCHASE, TRANSFER OR RETIREMENT C. & R. ORDER

C. & R. No.
A No.
(For Chicago use)

Name of Company
Plant or Branch House at
Street Address
Date 193

Request the purchase of the following:
Capacity Truck
Capacity Car
Type of Body

Make of Trucks in use at Branch
What Manufacturer's Repair Service available?
Dealer or Factory Branch
Can Car be stored in Company Garage or will there be outside storage rental?
How many miles per day will it travel?
How many tons per day will it handle?
What are the condition of roads car must travel?
How is work now handled for which car is wanted?
At what cost per week?
Amount Budgeted

IF OLD CAR IS TO BE TRADED IN ON ABOVE GIVE RECORD OF SAME BELOW

RECORD OF OLD CAR TO BE TRADED IN (as per Form 3042 C)

Year	Repairs	Tires	Total Exp.	Mileage
19				
19				
19				
19				
19				
19				
19				

Make
Engine No.
Model
Original Cost
Depreciation to date
Book Value (Net)
Estimated trade-in value
Total expense to date
REMARKS:
Company Serial No.
Date into Service
Capacity
Can body be used on new truck?
Can Cab be used on new truck?
Estimated cost to repair
Mileage to date
Cost per mile

SURPLUS CARS TO BE TRADED IN (To be Inserted by Automotive Dept.)

Company Number
Property of
Mileage Operated
Book Value
Trade-in Allowance
Loss or Gain
New Car Serial No.

COST OF NEW CAR (LEAVE BLANK)

	Estimated	Final
Chassis		
Freight, Gas, Oil and Tax		
Body		
Freight		
Cab		
Governor		
Extras		
Extras		
TOTAL		
Allowance on Old Car		
Net Cost of New Car		
Loss or Gain on Old Car		

Requested by
Approved by
Approved by
Approved by
Distribution
Approved by
Approved by
Authorized by
Authorized by
Branch or Plant
Head Office
Head Office
Property Accts. Dept.
Automotive Dept.
Automotive Dept.
Executive Dept.
Comptroller

ROUTE CARD

Week Ending 193
Name
Department

Date	Mail Address	Care	Wire Address
Monday			
Tuesday			
Wednesday			
Thursday			
Friday			
Saturday			
Monday			
Tuesday			
Wednesday			

Be sure to Properly Date and show ALL other information.

Automotive Department Inspection Report

BRANCH OR PLANT
DISTRICT
ADDRESS
DATE 193
MAKE
SIZE
TYPE BODY
SERIAL NO.
LAST ODOMETER READING
ACTUAL MILEAGE
PRESENT ODOMETER READING
INSPECTOR

	ENGINE	√		IGNITION--Cont'd	√		DRIVE	√		TIRES	√
1	Compression		38	Magneto Coupling		75	Chains		114	Pneu. Pressure Size	
2	Valves		39	Wires		76	Radius Rods			(R.F.	
3	Push Rods		40	Switch		77	Drive Sprockets			(L.F.	
4	Pistons and Rings		41	Spark Plugs		78	Universals			(R.R.I. R.R.O.	
5	Cylinders		42	Timing		79	Clutch			(L.R.I. L.R.O.	
6	Cylinder Head & Gasket		43	Distributor		80	Drive Shaft		115	Rims	
7	Exhaust Manifold & Gaskets		44			81	Transmission		116	Spare Tire	
8	Intake Manifold & Gaskets		45			82	Service Brakes		117	Spare Tire Lock	
9	Port Plugs & Gaskets			STEERING		83	Emergency Brakes		118	Tire Carrier	
10	Wrist Pins		46	Steering Post		84	Brake Rods--Equal.			% Size	
11	Bearings		47	Steer. Knuckle Arm		85	Rear Axle and Differential			R.F.	
12	Crank Shaft		48	Steering Arm						L.F.	
13	Crank Case		49	Drag Link		86	Hand Brake Lever		119	Solid R.R.	
14	Timing Gears & Camshaft		50	Cross Steering Tube and Ends		87	Front Wheels			L.R.	
15	Timing Gear Case		51	Steering Gear and Worm		88	Wheel Alignment			SPRING GROUP	
16	Starting Crank		52	Spark and Throttle Control		89	Rear Wheels		120		
17	GOVERNOR		53	Front Wheel Spindles		90	Front Axle		121	Front Springs	
18	Oil Pump		54	Front Wheel Alignment		91	Jackshaft Assm.		122	Rear Springs	
19	Lubrication					92	Pinion, Shaft and Bearings		122a	Rear Helper Springs	
20	Is Engine Clean?		55			93	Frame and Rivets		123	Front Schackles	
21	Fan		56			94			124	Rear Shackles	
22	Water Pump			ELECTRICAL SYSTEM			EQUIPMENT		125	Rear Shackle Rods	
23	Water Pump Packing		57	Lamps		95	Bumper		126	Axle Clips	
24	Engine Support		58	Horn		96	Oil Filter		127	Shock Absorbers	
25	Hood		59	Generator		97	Air Cleaner				
26	Air Pump		60	Ammeter		98	Body and Tops			LEAKS	
27	Air Valves		61	Regulator		99	Stakes		128	Motor Cross Shaft	
28			62	Starting Motor		100	Tail Gate		129	Cylinder Base	
	RADIATOR		63	Starting Switch		101	Floor		130	Crank Case	
29	Radiator Core		64	Battery Wiring		102	Cab, Dash and Windshield		131	Valve Spring Covers	
30	Radiator Tank		65	Battery Water Level		102a	Rear View Mirror -- Wiper		132	Pressure Gauge	
31	Radiator Plates or Shell		66	Tail Lamp		103	Fenders and Steps		133	Level Gauge	
32	Radiator Supports		67	Stop Lamp		104	Paint		134	Gas Line	
33	Radiator Shock Absorbers		68			105	Curtains		135	Gas Tank	
34	Hose Connection			CARBURETOR		106	Speedometer		136	Cylinder Water Jackets	
35	Radiator Solution		69	Adjustment		107	Prest-o-Lite Sys.		137	Hydraulic System	
36	Safety Emblem		70	Needle Valve or Jets		108	Muffler		138	Carburetor	
	IGNITION		71	Choke		109	Cushions		139	Differential	
37	Magneto		72	Hot Air Stove		110	Hand Horn		140	Transmission	
			73	Screen Clean Out		111	Is Tarpaulin Clean?		141	Rear Wheels	
			74			112	Slogan Cards		142	Air Lines and Tank	
						113	Notice Plate		143		
									144		

(√) Check Items O.K. (X) All Items Requiring Attention, Furnishing Explanation Below.

(See Other Side)

This article and the one to follow next month is based on a paper which Mr. Faulkner presented before an S.A.E. section group. In consenting to this exclusive publication Mr. Faulkner submitted the various forms reproduced here for the benefit of other fleet men and students of transportation.

Mail to Automotive Property Accounting Dept., ARMOUR AND COMPANY, U. S. Yards, Chicago, Ill.

PERIODICAL AUTOMOBILE REPORT

(Submit Separate Report for Trucks and Roadsters)

Plant or Branch House at
Weeks Period Ended 193

(1) OPERATOR'S NAME	(2) MAKE	(3) CAPACITY	(4) Motor or Serial Number	(5) GROSS COST	(6) DEPR. TO DATE	(7) REPAIRS Mech.	Body	Painting	Accident	(8) TIRES	(9) GASOLINE	(10) OIL	(11) MISCL. OPER. EXP.	(12) Total Controllable Expense	(13) DEPR.	(14) RENT	(15) OTHER FIXED EXP.	(16) TOTAL EXPENSE	(17) Quarts Oil	(18) Cub. Gas.	(19) Miles	(20) DAYS IN SERVICE	(21) Days Oper.	(22) TONNAGE
TOTAL																								

(SEE REVERSE SIDE FOR INSTRUCTIONS)

(25) CARTAGE AND FERRY
(26) CHAUFFEURS' WAGES
(26) CHAUFFEURS' LIABILITY INS.
(27) DELIVERY SUPERVISION
(28) TEAM EXPENSE
(29) TEAM SALARIES
(30) OVERTIME WAGES
(31) OVERTIME HOURS
(32) TOTAL AUTO AND WAGON TONNAGE
(34) TOTAL LABOR PULLING CARS

REMARKS:

(33) RECONCILIATION

TOTAL EXPENSE (16-26)
CHAUFFEURS' AND HELPERS' (26)
DELIVERY OVERHEAD (26-27)
TOTAL REPORT
LESS DIRECT EXPENSES
EQ DEPARTMENTAL

SIGNED

Chief or Office Manager
Manager or Superintendent

1. Standardization of equipment, accessories and supplies.
2. Supervision of the maintenance of the equipment.
3. Getting the proper usage of the equipment and advising the operating organization with reference to its operation.
4. Collecting and analyzing data with reference to cost of operation and the usage of the equipment.

Prior to the establishment of the automotive department, choice of equipment, accessories, and supplies was left largely to local authority. Although all equipment was purchased by the purchasing department, the field organization predominated, in most cases, with reference to the kind of equipment purchased. As a consequence, little progress was made towards standardization.

There are two important problems with reference to expenditure for maintenance of equipment.

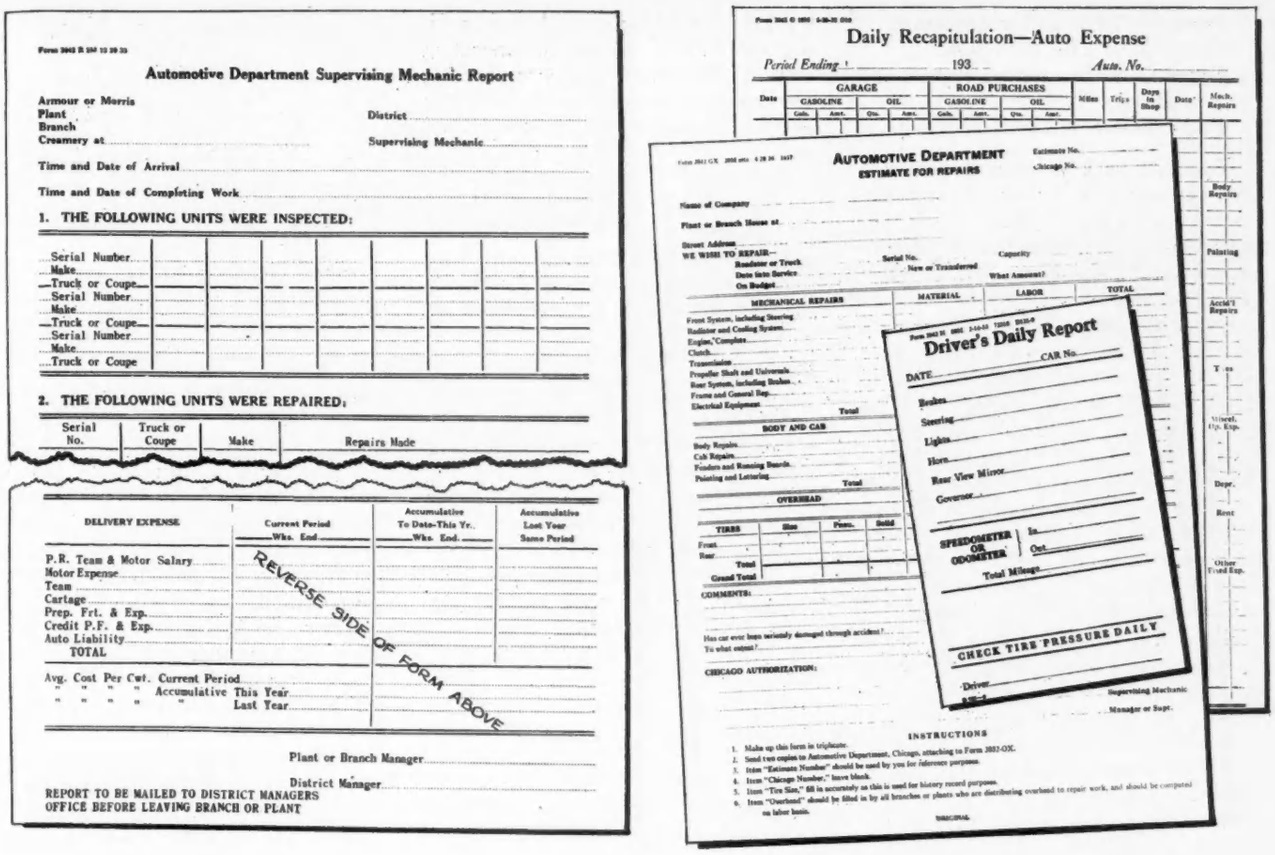
1. It is necessary to see that vehicles are properly used so that repairs are reduced to a minimum.
2. It is necessary to see that repairs are properly made at a minimum of cost.

Where possible repairs are made in company garages or central repair shops, although a large percentage is made locally at public garages where shops are not maintained by the company.

Motor vehicle maintenance should be viewed from two standpoints:

1. Preventative maintenance.
2. Major overhauling.

By preventative maintenance I mean definitely doing those things regularly and systematically in connection with the servicing of a motor vehicle which the non-technical man must recognize will prolong the life of the vehicle in addition to keeping it in serviceable



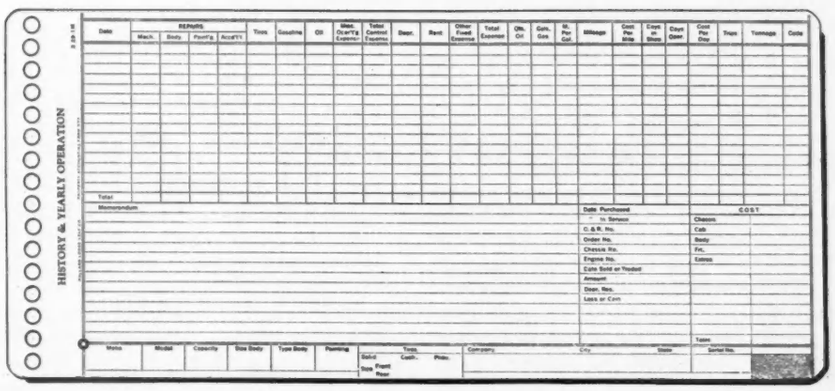
condition. There are three fundamentals of maintenance which, if followed systematically, will pay big returns on the investment:

1. Lubrication; 2. Inspection; 3. Adjustments.

I have contended for many years, and our experience indicates the contention is correct, that if the above three things are followed systematically, barring accidents, the motor vehicle will live until it becomes obsolete.

We follow the plain of lubricating our motor vehicles weekly. It is recognized that a mileage basis is the most efficient, but it is too complicated, particularly where vehicles are in the hands of unskilled help and where there is a wide variation in the number of miles per week operated. We never attempt to lubricate a vehicle until it has been thoroughly washed to remove all dirt and abrasive. You cannot expect a man to do a good job of lubrication on a truck that is covered with mud and dirt, and during the winter season this probably is frozen, making it almost impossible to find the grease fittings.

Regular vehicle inspection is of the utmost importance, and for simplicity we break this down into three groups: mechanical, tires and bodies. We recommend inspection of each vehicle on a 30-day basis. And where we do not have facilities, or the staff, to make this inspection, we insist the vehicles



be sent to outside shops for inspection and reports submitted on all items covered by our own inspectors.

We have what we term supervising mechanics, stationed in certain districts, who are responsible for the appearance, mechanical condition and operating results of all equipment in their territories. To me an inspection is not an inspection unless all minor defects noted at the time of inspection are corrected and any major faults either corrected at the time, or arrangement made for such correction if the job reaches major proportion.

We segregate our major work into five groups:

First—The most expense item—engines.

(NEXT PAGE, PLEASE)

Second—Clutch and transmission.
Third—Rear axle, drive line.
Fourth—Brakes, steering system, and front axle.
Fifth—Frame and general repairs.

By major work we mean the thorough reconditioning of the unit by replacement of worn parts. Many repair jobs come under the major heading due to carelessness and neglect. A leaky water pump or radiator may be the cause of a cracked cylinder block. The failure to put water in the battery is the cause of many generator failures. The failure to keep the engine washed free of grease and oil may be the cause of a fire. The failure to keep the proper free play in the clutch pedal is responsible for more burned out clutches than any other cause. Failure to keep brakes in proper adjustment is responsible for scored brake drums and many accidents. Fully 75 per cent of our major work is traceable to neglect in operation, to take care of small and seemingly unimportant adjustments.

We are confronted frequently with requests from the field to replace units which, from our analysis of the records, appear to have further life and should be kept in service. Upon development of fact, we find too often the reason for retirement is an attempt to dodge the overhauling cost, which must be picked up as an expense item in the period in which it is incurred, as against the cost of a new unit which is charged to capital investment.

● *Replacement Questions*

In making a decision as to the proper time to replace a vehicle, we recommend to our operating people that they ask themselves the following questions:

1. Is this unit the proper size to perform our work satisfactorily?
2. Does it have the proper size body to enable you to do your work efficiently?
3. Is the unit of proper type?
4. Will it cover your route satisfactorily?
5. Is manufacturer's or dealer's service available for making proper repairs of the unit?
6. What is the estimated reconditioning cost?
7. What is your present investment value in the unit?

No single answer to the above is a determining factor, but a summation of all angles to the problem must be carefully considered. The economic life of a motor vehicle is of a variable nature depending, first, upon the quality of the vehicle initially, and then how the unit has been handled while in our service. Overloading and overspeeding are the two greatest deteriorating factors. Negligence and poor handling are equally important. These elements shorten the expectancy for efficient operation.

Our policy is very definite as regards speeding. All vehicles, including salesmen's cars, are equipped with governors set at predetermined road speed. These devices are very carefully checked periodically to maintain an accurate control.

● *Curbing Overloading*

The overloading evil has been regarded from several angles. We have waged an incessant educational campaign to train our people, not only as to proper methods of loading, but as to the maximum payload allowed on the various types of equipment. Our experience indicates that, with a very large scattered organization and operating conditions such as we are confronted with in our fleet, the educational program alone is inadequate. This is due primarily to the differences of opinion that exist, not only in the minds of our operating organization, but among the manufacturers themselves, as to what constitutes a payload for a certain given vehicle.

We have taken a very definite stand as regards the amount of payload to be carried on our various types of units. We give a definite rating to each vehicle placed in service—both as to maximum gross allowable, and the maximum permissible payload, with positive instructions that overloading must be held within this limit. We go even farther than this—we lean to short wheelbase trucks with short bodies, which are difficult to overload excessively.

In the days of open express bodies and high tail gates, it was impossible to control overloading as the sky was the limit, but with our present body construction, which is of the fully enclosed type with back doors required to be fully closed before they can be latched, we have considerable control.

We furnish our various operating divisions with charts giving the following data for their guidance in requesting a replacement or an additional vehicle: Manufacturer's probable rating, gross vehicle weight (our rating), approximate chassis weight, body and cab weight, payload, wheelbase we would furnish, body size to be furnished, and maximum tire size permissible.

All recommendations from a local operating organization are checked by the traveling mechanic before submitting to Chicago. If there is any doubt in our minds as to the size of the vehicle requested, further information is developed, as will be described next month under automotive surveys.

Butane—The New Motor Fuel

(Continued from page 22)

Pressure is 0 lb. per sq. in. gage at 11° F.
Specific gravity of liquid (Water —1), .576.
Initial boiling point, 11° F.
Final boiling point, 30° F.
Weight per gallon of liquid, 4.8 lb.
B.t.u. per gal., 102,000.

Bu-Gas normally is a gas at atmospheric pressure. It is liquefied to facilitate storage and transportation. In allowing it to return to its gaseous state the vapor pressure is released, resulting in a refrigerating effect, because of which the latent heat of vaporization must be supplied during the period of volatilization.

Butane is highly volatile, but it is a proven fact that it is far less hazardous than gasoline. It will not spread and burn, because it evaporates as soon as it strikes the atmosphere. In case of leakage the gas is physiologically non-poisonous. It is non-corrosive and is completely combustible, carrying no inerts. Use of butane has been approved by the National Fire Protection Association (International) and suggested regulations covering its storage and distribution have been issued. These regulations are not onerous. While it is handled in about the same manner as gasoline, it is far from being a service station product or problem. Despite the low cost of butane, the rather large investment required for the special equipment employed limits its use to the large fleet owners who can maintain adequate centralized storage facilities.

● *Transferring the Liquid*

The transfer of the liquid from tank truck to storage tank and from storage tank to fuel supply tank is effected by means of coupled connections. Where gravity flow is not available, a special pressure pump is employed.

Butane has taken its place in industry, along with the other more important fuels—bunker oil for steam power plants; gasoline for automotive use; diesel fuel where applicable, and butane where present gasoline or distillate equipment warrants its use.

There are arguments to the contrary, of course, but originating from sources where least anticipated. However, neither engineer nor layman can honestly question, with any devotion to logic or facts, the economic value of butane, especially when applied to rail motor car or truck and bus transportation.

LAST month Mr. Frazer, a West Coast operator, told how fleets can go about the job of reducing their costs below what may have been considered the irreducible minimum. In this article an East Coast operator relates his experience in "finding all kinds of ways to save money."

By E. W. Jahn, Superintendent of Transportation, Consolidated Gas, Light & Power Co., Baltimore

We Pinched the Dollars as Well as the Pennies and Down Came Our Costs

WHEN the depression compelled us to bring expenses down to a minimum it opened our eyes. At first it appeared almost impossible to save money but when we began looking around for ways and means of cutting costs, we found plenty. We cut out a lot of record-keeping which we found we could get along without, saving among other things, $1,500 per year in salary. We budgeted repairs on a monthly basis and showed a decrease in costs of 20 per cent the first year. In fact, we found all kinds of ways of saving money and that we could eliminate many things which we formerly considered necessary.

Budgeting repairs on a monthly basis cut costs more than anything else. We cut out a lot of repairs and evened up the monthly repair charges without handicapping our operations. Savings in the second year of the budget system ran about 30 per cent and it is running about the same ratio this year. And this is in spite of the fact that we are operating 484 vehicles in 1933 compared with 381 in 1928. Budgeting is not entitled to all the credit; we have reduced accidents, thus cutting down repair bills, and improvements in design of trucks, better roads, more efficient shop work and better handling of the equipment have also helped.

Charges for repairs used to fluctuate all over the place but now we keep within bounds each month. Each time a man authorizes a repair job he estimates the cost of labor and material and we keep a running summary of these figures. As a result, we have some idea of how much we have spent and how much we have to spend at any given time in the month. This system does not prevent vehicles from breaking down but it does show us our commitments, day by day. If almost all of our budget is used up near the end of the month we carry some of the work over until the next month.

The service shop, although owned by the company, is not a part of the fleet organization and it serves the fleet just like an outside service station. The shop does no work except upon order, the same as a car owner drives into some service station and authorizes them to do work upon his car. The shop charges the fleet for all work performed. Overhead is included in the charges, of course. However, there are no collections to worry about and no advertising or sales expense, so we expect our shop costs to be much lower than outside shop charges. If not we send the work out.

We inspect all vehicles in the fleet every 60 days but we have eliminated, wherever possible, all record forms to be filled in by inspectors. These men are mechanically inclined and the more paper work we give them to do the more time is taken from mechanical work. It might take a mechanic an hour or more to fill in a set of forms and that is just so much time taken from the job for which he was employed.

In making the periodic inspection a mechanic starts on ignition, for illustration, then goes after carburetors or

wheel bearings or any other class of work.

We formerly kept individual battery records and individual tire records, requiring forms to be filled in. When we bought a tire we filled out a card and traced the tire from wheel to wheel and vehicle to vehicle until it was junked. Likewise, we filled out a card for a new battery and traced its movements to a vehicle, out for recharging or repairing, back into a vehicle and so on until it was junked.

We have eliminated both records. We found after studying the individual tire records that the cost was fairly close so we discontinued it and substituted tire tests which give the same result. We select a group of about 30 passenger cars or 15 trucks and run mileage tests on the tires on the group. We recommend tires to the purchasing department on the basis of these tests.

Tire costs have been reduced remarkably within the past few years by using this plan and the fact that tires cost less and give better service. We set aside one section of the shop for tire repairs and we know the cost of this work exactly.

In place of the individual battery record we rate batteries according to the number of months of service. We number and date a battery when it is put in service and it is easy to tell how many months' service it gives before it is junked. We buy the batteries which give us the lowest cost per month of service.

• *Lubrication on Time Basis*

Vehicles are greased once a month, regardless of mileage, thus doing away with mileage records. Formerly we lubricated on a mileage basis but it was difficult to keep the records accurately, also it took much time to maintain the records. Under the present plan, some vehicles are over-lubricated but we figure that little money will be wasted. Under the former plan certain parts were lubricated at different mileages than others, say spring shackles at one time, transmissions at another. Now we do the whole job all the way through at one time.

Instead of changing engine oil every thousand miles we have stopped changing it at all on either passenger cars or trucks and we have not experienced any lubrication trouble, nor any increase in repair expense. We still throw a rod bearing occasionally, as we did before. But we do not know why we did or do. But we are having no chronic lubrication or repair troubles.

We started experimenting with the no-oil-change plan in April, 1930. When we drop crankcases we find that the oil looks as good, or better, than before and there is no sludge. Comparing oil in crankcases which had not been drained with oil in crankcases which had traveled 20,000 miles with draining at intervals indicated a higher film strength than new oil. We are now experimenting with organic acid to increase film strength but to avoid destructive corrosion.

All of our trucks are equipped with air cleaners and oil filters. We use a light prediluted oil during running-in periods. We buy engine oil according to our own specifications, not by brand.

Yes! In 50-Truck Fleets With 50-Mile Radius

(CONTINUED FROM PAGE 14)

locates his service station at the most economical base of operation, taking into consideration lost wheelage and the proximity of his customers.

Your other large items of fixed charges, such as light, heat, water and insurance, are items that, whether you are operating an individual station or not, must be borne. They are the same in the majority of instances. Our fixed charges cannot be more than those of outside service stations where I have had experience, and I want to say that we have had outside maintenance and we discontinued it.

We are lower than they are when it comes down to personnel. There is no difference between the personnel we might select as an individual operator of our own service station and the personnel of the outside station.

This matter of mechanical efficiency does not stop with the efficiency of the coordinated units by any means; it must be carried throughout the entire productive life of the vehicle, and to get the maximum service out of the vehicle your personnel must be thoroughly trained and thoroughly acquainted with your individual problem. That can not and has not, in my experience, been the case with outside service stations.

The accessories of service are the same whether you operate your own station or go outside. Tell me a service station that rewinds its own armatures. None that I know of. They send all that equipment to specialists, and justly so. It is true, the effort of these specialists has enabled us to enjoy a still lower maintenance cost.

Take major repairs. Major repairs are a relatively small percentage of total mechanical cost. Analyze your own mechanical personnel department and you will find that 60 per cent of the men on your payroll are doing a "stitch-in-time-saves-nine" after the vehicles come into the barn. That 60 per cent of your personnel, whether you have outside work or not, must be maintained in your own baliwick if you wish to guarantee maximum efficiency and service.

Mechanical efficiency only covers, in my opinion, about 30 per cent of the major units in your vehicle. I want to drive this point home in relation to that figure given above that 40 per cent of your payroll cost is only for major repair work.

I think we all agree, from our own experience, that cost of major parts replaced about balances the cost of the labor. In other words, throughout the general scheme of repair, if you spend $60,000 a year in parts, you will spend approximately $60,000 a year in labor for the installation of these major parts. Therefore, parts replacement is quite an item when we come down to maintenance outside versus inside.

Should you take an engine that would require $20 worth of parts and send it to an outside shop you pay from 15 to 25 per cent more for your parts. That is a matter of record. So, if you spend $100,000 for parts in your own shop, and you decide to let some one else do your work you are going to give him $125,000 for the same parts. Also you are going to deprive yourself of the privilege of salvaging a high percentage of those major overhaul parts that make up your integral units.

• *Direct Supervision Vital*

The question in everyone's mind in transportation is dollars and cents. But in mechanical efficiency there is a point that cannot be weighed absolutely in dollars and cents, because it is a very intangible item. That is the convenience, the ability and the privilege of having those vehicles which, we will say, cost $5000 apiece, and a total investment of $3,000,000, under your direct supervision. When you let that go out, you have lost individual control of those $3,000,000 in so far as their application to mechanical repair is concerned. I have taken into consideration in that figure the asset value of the vehicle.

If we have our major work done outside, we must still maintain a stockroom, and what does that stockroom mean in dollars and cents? To us it means $5 per vehicle per year. The stock consists of approximately 4000 items, for the convenience of doing your "stitch-in-time" work after the driver has completed his day's work and returned to the barn, because that vehicle may be rendered useless the next

(TURN TO PAGE 50, PLEASE)

AFTER HOURS

Federal Regulation

THE American Trucking Associations, Inc., has announced that it is opposed to federal regulation of truck transportation until its code of fair competition has been given a trial. It has also requested Congress to enact legislation which would prevent railroads from instituting non-compensatory rates.

There's nothing absurd about this, as some friends of the railroads seem to think. Nor is there any point in their declaring that the position of the trucking interests is completely out of harmony with the views President Roosevelt expressed in his Salt Lake City campaign speech, when he said: ". . . motor transportation should be placed under the same federal supervision as railroad transportation. . . . I advocate the regulation by the Interstate Commerce Commission of competing motor carriers."

It is only fair to point out that if any lack of harmony exists, the President has only himself to blame.

In declaring for federal regulation of trucks back in 1932, the President expressed the sentiment not only of railroads, but of all the large trucking operators, who saw in it their sole relief from the rate-chiseling practices of irresponsible truckmen. They were, in other words, in harmony with Mr. Roosevelt. And, it should be pointed out, these same large trucking operators are now members of the American Trucking Associations, Inc.

The harmony prevailed even in 1933, when the President successfully promoted the National Industrial Recovery Act, which ordered the trucking industry to work out a code of fair competition to promote recovery. The truckmen responded with a will, settled differences within their ranks and set about the task of working in harmony with the principles of the President.

The harmony continues to prevail today while the trucking industry's code of fair competition undergoes hourly changes at the hands of the NRA.

There is discord only between the President's 1932 and 1933 ideas of what truck transportation needs. If it needs a code, it is as superfluous to think of imposing federal regulation as it is to put federal-regulated railroads under a code.

Forced to work under a code which, no matter how you look at it, is a form of federal regulation, and which has as its fundamental principle that no service shall be performed at a rate below the cost of its performance, the trucking industry is fully justified in resisting any Congressional attempt to impose federal regulation and in demanding that the railroads be prohibited from charging unremunerative rates.

In this they seek only the protection from railroad rate-cutting which their code grants them from members within their own industry.

Without this protection the trucking code would be a tragic farce.

There is no sense in the trucking industry's forging shackles for itself and voicing no complaint while those of its worst enemy are loosed.

Shippers, It's a Myth

COMMENTING on the efforts of railroads to restrict through regulation the economy and efficiency of highway transportation, the *Chicago Tribune* editorialized in this strong fashion:

"The conclusions of shipper bodies show that they are almost unanimously opposed to any form of legislation. A few consider that something should be done to banish the irresponsible truckmen from the highways, but this minority should remember the history of rail regulation and beware lest the camel get his head under the tent.

"Regulation of transportation in the public interest is a myth, and each shipper organization should take swift and sure action to voice disapproval of any measure designed to limit the development of this valuable public utility. Each shipper should make it his personal business to see that action is taken by his organization."

Fleet Discounts

THE industry has never had a satisfactory definition of a fleet account. Any operator of two or more vehicles has been considered a fleet buyer. A ridiculous definition, obviously, because no operator of two units or even 10 units makes annual replacement purchases in quantity sufficient to materially reduce selling expense. And it is solely on that premise that a fleet discount should be granted.

In the past this premise has been totally ignored. An operator of 10 trucks of 10 different makes enjoyed the fleet discount at the expense of 10 different manufacturers (or perhaps we should say trade establishments), although the cost of selling him in each case was greater than selling the corner grocer one lone panel delivery.

Of course, there was no united trade effort to exact the legitimate profit from each deal, and in this circumstance the shrewd one-truck owner could promote a deal whereby the liberal trade-in allowance would net him the equivalent of a fleet discount. There was no occasion for the trade to point an accusing finger at the teeney-weeney fleets and declare they were getting a discount which they did not deserve. So far as victimizing the truck dealer went, the teeney fleet had nothing on the one-truck owner.

Today the trade, operating under the dealer code, is making a concerted effort to make each deal a profitable one. It has found a way to handle the single-vehicle buyer, but the fleet buyer continues to present a baffling problem. Baffling solely because there seems to be difficulty in defining what is a fleet and when is it deserving of a fleet discount.

The latest report out of Detroit is that manufacturers and dealers have hit upon a solution which may prove satisfactory. According to the unconfirmed report only fleet owners making purchases in the amount of $15,000 annually from a factory will be eligible for consideration as a national account and the discount that goes with it. Fleets would make purchases in the same manner as plain retail customers, but would receive a certificate of purchase. The certificate would be rebated by the factory and the factory would collect the rebate from the dealer.

The plan, in principle, has merit and represents a distinct advance in thought on the subject of fleet discounts. At least, it has the distinction of basing the discount, not on ownership but on purchases; in other words, not on how many trucks a firm operates, but on the number of trucks it buys. That's reducing the matter to business horse-sense.

There may be a howl from the buyers' bench that the $15,000 ante is too high. It may be. But just now we're simply discussing the principle involved. Moreover, it's up to the seller to determine the figure at which his selling costs warrant the granting of a discount.

Using the Special

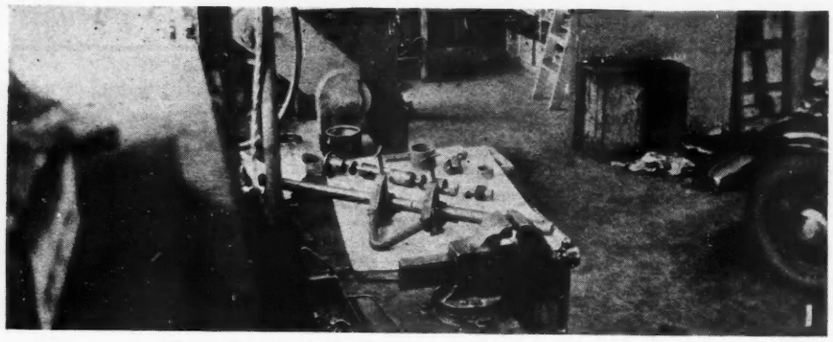
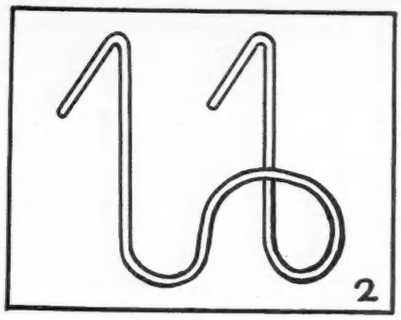


Fig. 1—Butt-weld aligning clamp
Figs. 2 and 3—A hose hanger



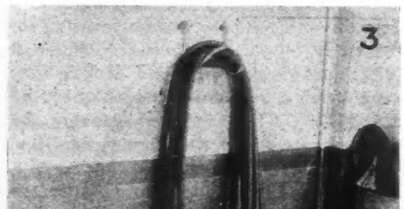
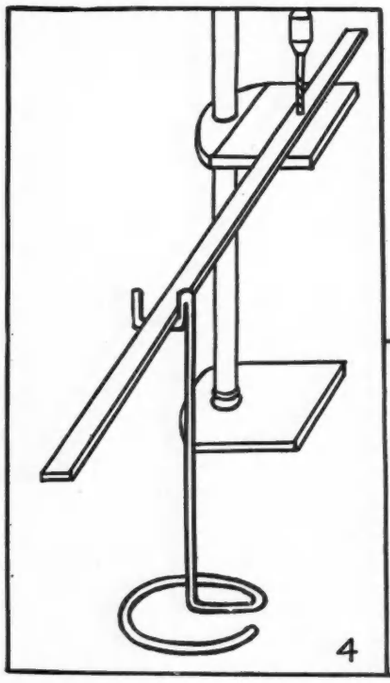


Fig. 4—Drill press aid



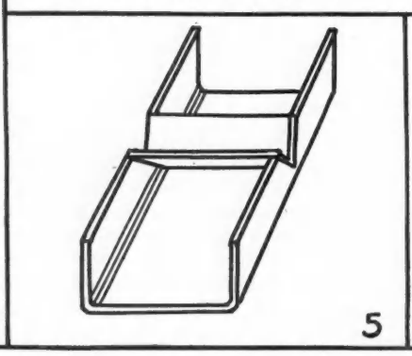


Fig. 5—V-block drill press aid

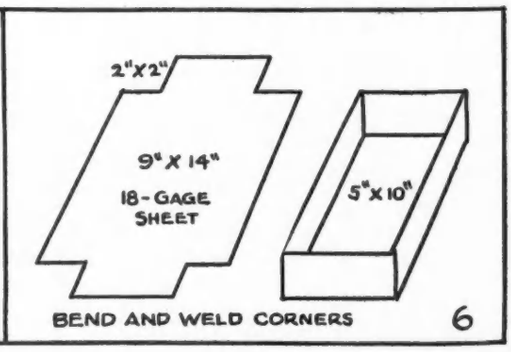


Fig. 6—Metal boxes

By Billie Burgan, Fleet

In this and succeeding articles Mr. Burgan shows how the welding torch can be used in the making of new things, designed to make work easier and truck ownership less costly. Mr. Burgan is an expert welder and his advice is available to readers. Write him care of Commercial Car Journal.

• *Butt-Weld Aligning Clamp*

With the help of this clamp (Fig. 1) a particularly hard job becomes an easy set up for the welder. It enables him to place two pieces of material (angle, round, or flat bar) into the clamp, and line them up ready for a butt-joint weld.

To make it—cut the clevis ends off a T Ford front axle—thread the top of each clevis with a ⅝ U.S.S. tap—thread two long ⅝ in. cap screws—shoulder them at the foot—weld T handles on for heads—prepare swivel pieces of 1 in. x 1 in. x ¼ in. x 1½ in. angle—rivet swivels loosely to shouldered feet of screws as a C clamp—wire a 10 in. piece of 1½ in. x 1½ in. x ¼ in. angle to a 2-ft. bar or a straight piece of pipe—set clevises on it, 7 in. between them—weld the 10 in. piece of angle to the lower side of both clevises—shape and weld a V made of 12 in. of drive axle stock to clevises—remove clamp from straight bar and with cutting torch, slice 5 in. out of the center of the 10 in. angle—smooth rough places and it is ready for use.

The clamp as described is clearly shown holding two pieces of 1¼ in. pipe butted as for welding.

• *A Hose Hanger*

Nothing we ever did changed appearances from "Sloppy Ann" to "Formal Dress" any quicker or cost less in proportion to results than the day we sizzled our torch over a piece of rod to turn out this hose hanger. (Fig. 2.)

To make it: Take 4 ft. or more of ⅝ in. rod and double to a hairpin shape with sides 8 or 10 in. apart. Mark lines on each bar—1 in. spacing. Catch U end in vise, then with torch heat a line on one bar and bend a few degrees. Next heat the same line on the other bar—back and forth, matching the pull, one bar with the other, until both bars are pointing downward and in line with each other. At 4 in. from ends heat and turn sharply upward, an acute angle, about 22½ deg. Take out of the vise and quench when black.

To mount it: Mark the wall and drill holes angling downward. Hang feet in them knees up. (Fig. 3.)

• *Drill Press Aid*

This light convenient stand (Fig. 4) is turned up in 10 minutes with the torch out of ⅝ in. bar. It is made to match the average drilling height and

Welding Torch to Fill Needs Clips Costs

SUPERINTENDENT, HAGE'S ICE CREAM CO., SAN DIEGO

will hold long unwieldy lengths of angle, flat and round pieces for drilling. When not in use it stands in a corner at the end of the bench.

• *V-Block Drill Press Aid*

Shafting drive tube, or large pins can be managed to perfection in this large V block for a drill press. An easy fabrication by cutting and welding of 2 in. x 2 in. angle iron and a 6 or 8 in. frame channel. See Fig. 5.

• *Metal Boxes*

Tin cans, cigar boxes and other make-shifts suffered a black eye and found repose in the rubbish barrel after we made up some 15 of these containers (Fig. 6) from 18-gage galvanized sheet metal. They are simple, clean, durable and handy. Use them in the storeroom and for service jobs.

• *Water Pump Packing Putters*

Turning suspense into joy, happens the very moment the last hair of a packing ring is in past the threads and the nut started. The easiest, most efficient method I know is to make a pair of putters (Fig. 7) to do it with. Cut a shaft size bushing in half and braze the pieces right and left on ¼ in. x 1 in. soft steel rounded out in the ends to meet the angle of the job. You can bump these putters with a hammer and no harm is done—they work.

• *A Vise Aid*

Fig. 8 illustrates how a limber piece of steel may be easily managed in a bench vise aid. We have a number of holes in the bench to set the aid in, at the proper place.

To make the support: Mark all the bends on a straight ½-in. bar 18 in. in length, noting carefully which side of the bend the bar thickness falls on, in order to arrive at the proper height. Half inch stock is ample and it can be shaped by the welding torch in five minutes. (See Fig. 9.) To get the proper height be sure that the U-shaped part of the support lines up with the low edge of the vise jaw.

• *A Jack with Ears*

Why shouldn't a jack have ears to prevent a round axle from slipping off when you yank off a tire? I concluded it needed some when one of our fellows came near getting a leg broken. The jack cap (Fig. 10) is made of a ½ in. circle, cut from a pipe coupling and welded to a piece of soft steel strap, bent oval.

• *To Feed on a Nut*

Just as real as ears for jacks is the satisfaction of feeding a nut onto a frame bolt beside the radiator after tack-welding it to a crooked piece of welding rod. Fig. 11 shows how it's done.

Fig. 10—A jack with ears
Fig. 11—To feed a nut

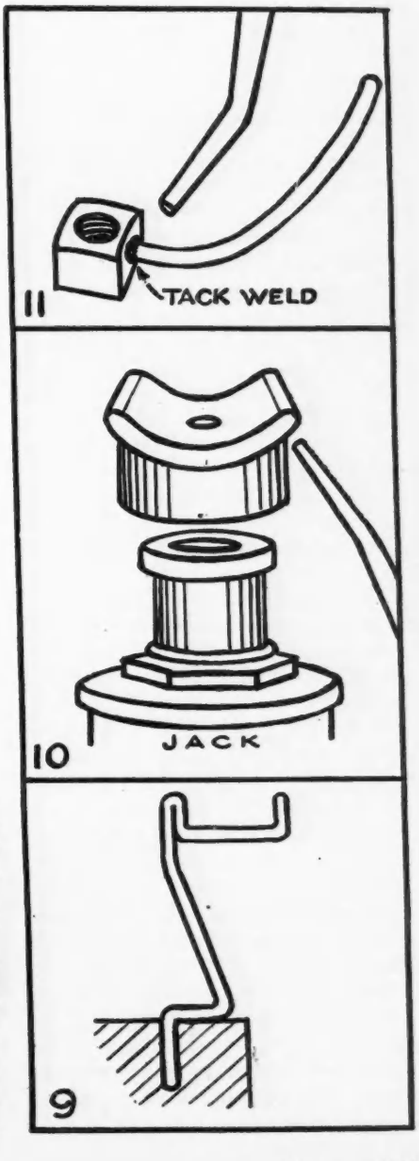
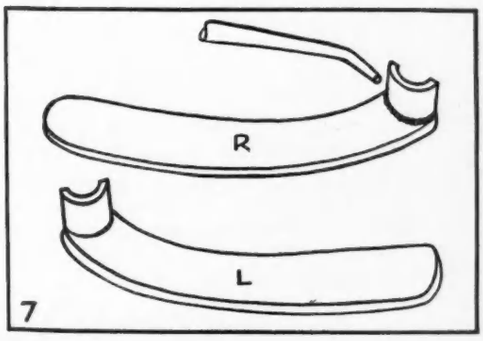
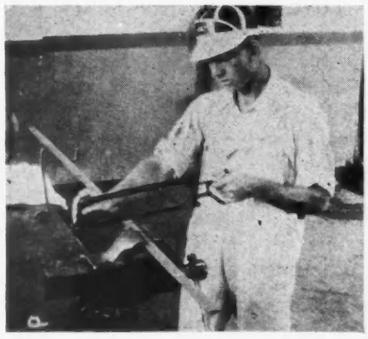


Fig. 7—Water pump packing putters



Figs. 8 and 9—A vise aid



No! Besides No Fleet Is Entirely Self-Serviced

(CONTINUED FROM PAGE 16)

out of service, relegating the unit overhaul work to the manufacturers' service stations.

This, of course, presupposes that the manufacturer has provided a service station conveniently located to the operator's shop, which is equipped and manned for the work and so efficiently managed as to afford the requisite promptness, thoroughness and fair charges; a matter which merits the operator's careful analysis before laying down a maintenance policy and each time vehicles are purchased.

This constitutes another determining factor, the importance of which cannot be overstressed. Circumstances certainly do alter cases in this respect, so that it is utterly impossible to determine the extent to which it will be advantageous to make use of the maintenance service offered by the vehicle builder without considering the quality of service which he offers, in each instance.

● *Fleets Duplicate Facilities*

However, it should be understood that the extent and quality of service offered by the manufacturer is affected in some degree by the attitude of fleet operators. Every operator who sets up his own maintenance plant, duplicating the facilities and operations which the manufacturer is obliged to provide for the small operators in his territory, reduces the scale of operations of the manufacturer's service station and to that extent its ability to serve the fleet operator as well as other operators.

It is a foregone conclusion that even in the larger centers, greater patronage of the service station by the fleet operator results in better service being given. Manufacturers have endeavored to anticipate this logical result in many instances, by providing the service in advance, on a gamble, in expectation of demand. In some instances, unfortunately, they have been left holding the bag by the withdrawal of patronage by large fleet operators, due to changes in maintenance or purchasing policy. It is thus important for the fleet operator to keep in mind the fact that fleet maintenance of the best kind is a co-operative enterprise. It is important to make sure that the manufacturer is able and willing to cooperate and then to whole-heartedly cooperate with him.

There is much abuse of the fleet discount on parts by which some false conclusions relative to self-service are drawn. The only fair basis for a fleet discount on parts is the purchase by the user of parts in sufficient quantity and in sufficiently large lots to actually reduce the manufacturer's handling charges and costs of sale. This particularly applies to those parts which are required with less frequency, in other words, the slow turnover parts.

Our company, for example, very seldom sells a crankshaft or timing gears, yet we must carry them in stock in all of the sizes required by the various models in operation in each territory, including the chance visitor from a neighboring state. Fleet owners who carry such parts in their own stock are certainly entitled to some consideration.

Other parts, which turn over frequently, such as pistons and rings, valves, chains or brake drums are the type which operators are most likely to carry in stock. Yet it is these very parts which the manufacturer can handle most economically, so that their stocking by the operator is of the least relief to him. It is furthermore precisely these parts—the cream of the business — which the independent parts poacher deals in, often—far too often —successfully.

The way it works, then, is this:

By stocking principally fast-moving parts, even where he buys the genuine part from the manufacturer, the fleet user does not really earn a discount, though for policy reasons he frequently gets it. The parts on which a discount would be worth the manufacturer's while—the slow-moving ones— are not usually stocked; but are dispatched special delivery in an emergency, notwithstanding which a discount is demanded. All well and good from the operator's point of view, so long as he can get away with it. His books show a saving.

Too often, however, upon adopting a policy of nearly complete self-service, it is assumed that the same saving will be realized on a complete inventory in the operator's own stockroom; only to find that the carrying charges on the slow-moving parts more than eat up the discounts.

● *Grand Scale Necessary*

Unless self-service is carried out on a grand scale, many of the expected economies will not be realized. This is sometimes due to disproportionate overhead involved in those jobs which account for but few hours while requiring considerable floor space and equipment, such as cylinder grinding equipment, radiator repair facilities, transmission overhaul appliances and so on.

It is sometimes the result of inefficient workmanship due to demanding too much versatility of mechanics, who must be jacks of all trades and masters of few, if any. It is difficult, if not impossible, for the small shop to keep abreast of improvements in tools and methods and for the small stockroom to avoid obsolescence of inventory —particularly the slow-moving parts.

This limitation does not apply to the small service station because it is, or should be, a branch of a chain which in many cases constitutes a part of a total service plant larger than the factory producing the vehicle.

It is often difficult for the operator's shop to accommodate itself to fluctuations in volume of work, whereas the service station, because it is a part of a chain, may call upon others which are experiencing slack periods for assistance.

There is danger, too, except where the operation is standardized on a single make, of standards and technique adapted to one product being misapplied to another to which they are wholly unadapted. Needless to say, this can not happen in a service station, devoted to a single make.

● *Human Element Obtrudes*

Human hazards also obtrude, such as the temptation for the superintendent to go too far in the scope of his operations for the sake of building up the importance of his own job. This is the lack of competitive urge which keeps the service station on its toes. The self-maintenance shop has a monopoly. Manufacturers' service managers are painfully aware that they have not.

With his preoccupation with the individual peculiarities of a single operation, there is danger of too narrow an outlook for the superintendent, a tendency to devote a disproportionate amount of his time to details of shop management, to the detriment of such outside conditions as the efficiency of operation, routing, dispatching and so forth. In some cases, indeed, the needless isolation of a self-contained shop has led technically-gifted operating superintendents to turn maintenance shops into experimental laboratories and parts factories, whereby the firm's money is spent in useless, crude and often misguided development work, long since tried and rejected by the manufacturer.

This, of course, is a dark picture. It is painted not as a reflection of inevitable consequences of a self-service policy, for we are all too familiar with too many splendidly efficient owner-maintenance plants to doubt that where appropriately conceived and ably managed, those plants are abundantly worth while. The purpose, rather, is to point out some of the less obvious pitfalls which beset the path of the organiza-

(TURN TO PAGE 51, PLEASE)

The Camels Are Coming—Still

ANOTHER exclusive truck manufacturer with extra-large distribution (we give you just one guess) is busily designing a "camel-back" model which will doubtless be ready for the spring-buying rush. This reminds us to remind you that if you want to brush up on the why and wherefore of the "camel-back" come-back you have only to turn to page 13 of this issue.

Dodge at the Show

Dodge Brothers had a large and impressive display of trucks at the New York Show. We expected the commercial cars, at least, to have independent springing, and we voiced the expectation here last month. The latest word is that the Dodge commercials will not have independent springing. Horsepower, however, has been stepped up materially.

That Tussle for Position

And the battle for position which we predicted Dodge and International Harvester would stage in 1933 will be a battle indeed. It became more of a certainty than ever because registration reports for November, just announced by R. L. Polk & Co., show that Dodge took third place away from IHC by 115 new registrations for the 11-month period. Totals for the 11 months are: Dodge, 24,832; IHC, 24,717. This circumstance will simply whet the competitive spirit of both these large organizations.

Stewarts Are Smarter

You'll find the new Stewart trucks for 1934 better looking than ever. The sloping V-shaped front ends are in the best modern style and add greatly to appearances.

Concentrated Alcohol II

Back in September we hailed a new alcohol anti-freeze of 200 proof and said it would go twice as far as ordinary alcohol. The U. S. Industrial Alcohol Co. tells us we're right in the matter of proof, but exaggerate the saving. The saving is about a quart in the average vehicle. It's called Super Pyro "200."

'S News for Snoozers

Autocar has designed something distinctly new in the way of a sleeping cab. The sleeping berth, which utilizes a new principle and about which we'll give you details next month, is 73 in. long when fully extended and 23 in. wide.

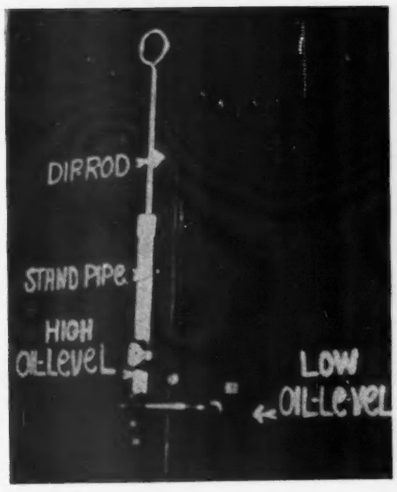
White 60-61 Owners, Ahoy!

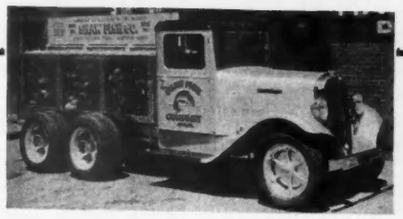
The oil level gage shown right is another recent development of the John Wanamaker, Philadelphia, Service Department.

The arrangement is quite simple, inexpensive and very practical. Ream out the original oil level cock, and insert therein a section of brass pipe sweated in place. Drill a communicating hole from back of cock into one side of pipe. This point establishes the high oil level mark. The low point is taken from fitting at bottom of pipe into the oil filter return line, as may be seen in cut. The pipe plug at bottom is convenient for cleaning purposes if needed.

The dip stick consists of a piece of bronze rod sweated into a pipe cap, the latter serving as a cover for the stand pipe. The stick is graduated for high and low oil levels.

The change over from the former method of ascertaining oil level has resulted in oil economy, and reduction in time taken in checking supply. Thirty-six White motors were changed over in the Wanamaker fleet.





Fish distribution has gone modern. The Shaw Fish Co., Erie, Pa., owns this six-wheel 3-ton Federal with a glass tank of several hundred gallons' capacity At night the truck is lighted with neon lights.

THE EAR-TO-THE-GROUND DEPARTMENT

•

Three New Diesels

Hercules Motors is expected to add three new diesel models to its line within the next six months. This will give it four diesel models. We can't give you the horsepower range of these four models but it's safe to say that the smallest job will put diesels right in the light-duty truck field. We understand that the new models incorporate even better fuel economy and performance characteristics than we have been led to expect of the diesel type of engine.

Re E.P. Lubricants

Our private grapevine intelligence bureau informs us that along the extreme pressure lubricants front may be detected the heavy odors of a fine kettle of fish, if you don't mind a thoroughly mixed metaphor. The kettle almost tipped over when a well-known axle manufacturer, according to report, issued a new set of instructions and took advantage of the opportunity to remark in bold-faced type that "it does not recommend E.P. lubricants."

Responsibility the Issue

An official interpretation of this statement has not been made. Like the notorious Wickersham report on prohibition it is being interpreted by various groups according to their persuasion. One E.P. lubricant group sees it not as a condemnation of E.P. lubricants but as an indication of the axle manufacturer's unwillingness to shoulder a responsibility which belongs elsewhere, and that elsewhere is the E.P. lubricant manufacturer. The group having no high regard for E.P. lubricants sees it as a condemnation of all such lubricants.

Pressure on Operators

Something, obviously, will have to be done to clean up the situation. One suggestion is that the operator must share responsibility in case of axle failure. This because no lubricant, no matter how superior its quality, can stand up indefinitely in extreme pressure service. So, in fulfilling his share of responsibility the operator should make periodic checks and periodically change the lubricant. This means periodic tear-downs of the rear-end, and while this is costly, it is pointed out that it is preferable to replacement of a very expensive unit.

Thermocouple Telltale

To help the operator exercise more control it has also been suggested that a thermocouple be placed on the rear end and that a gage on the dashboard tell the driver when his operating speed generates a temperature in the rear end that is not only too much for the lubricant but for the metallic parts. Checks have revealed temperatures of 400 deg., which, in the vernacular, is hot enough for hell to break loose. G.T.H.

West Coast Fleets Using Butane Testify to Large Cost Savings

(Continued from Page 19)

ment, a few days before this was written, in one of the trucks of W. H. Riske, proprietor of the Riske Transportation Co., of Sacramento. The truck was to be used to deliver newspapers from Sacramento to Redding and other points, a round-trip run of about 350 miles. Riske owns a total of 12 trucks and, if the use of butane in this one proves satisfactory, he expects to have them all converted. It was expected that his 12 trucks would use a total of about 15,000 gallons of butane a month, which would cost him, with tax and freight included, about 7½ cents or a little more per gallon. He planned to install a storage tank at Sacramento of 12,000 gallons capacity, at a cost of about $1,500. The Butane Sales Co. agreed to install the equipment for the entire fleet at $210 per truck, or a total of $2,520. Thus his initial investment would amount to about $4,020. But it was expected he would save about $800 or more per month on his fuel bill, the amount depending somewhat on the fluctuating cost of gasoline, which would pay for his original investment in slightly more than five months and leave him a clear gain of $500 a month thereafter.

But an even more concrete example, based, it is announced, on actual performance, is shown in the accompanying Table 1. The figures, the Butane Sales Co. states, represent the comparative cost to a well-known stage company, operating nationally, of fuel and oil for one month, under gasoline and butane, for a big group of vehicles, together with the amount of savings, both in dollars and percentage.

Although butane has been in use here and there and for a few purposes for two years or more, its use by trucks is so recent that figures on costs of operation and savings over the use of gasoline, as well as evidences of performance, to indicate the superiority of butane or the reverse, are by no means plentiful. However, here is one firm that has a definite opinion and is able to speak from personal experience.

The Fortier Transportation Co. of Fresno, Cal., operates a large fleet of trucks out of that city. Within the last few months it has had 10 of these trucks converted to the use of butane. The company began the use of butane about Sept. 1, last. W. J. Fortier, one of the principal owners in the concern, has direct supervision of the operation of the fleet of trucks. He says:

"We are perfectly satisfied with the result of our experiment with butane and we have saved a lot of money by it. Yet I am free to admit that if butane costs only two or three cents less per gallon than gasoline, we should use gasoline. That is because the use of gasoline is so much more convenient. You can't start a truck engine with butane, especially on a cold morning. So we have equipped some of our trucks with double fuel tanks. That is, we have one tank of gasoline installed and one of butane. Thus we start the engines with gasoline and when they are running nicely we switch to butane. We have converted 10 of our trucks to the use of butane and three of these have been provided with double tanks. These three cars are equipped with Holzapfel carburetors, which lend themselves to the double-tank system. We drilled a hole for a three-eighths-inch pipe fitting in the venturi and ran a pipe from each tank to the carburetor. Thus when we want to use gasoline we shut off the butane and turn on the gasoline and vice-versa. In the 7 other converted trucks we are using the Ensign carburetor.

"I cannot give exact figures in reference to costs and savings—in fact, we make it a settled policy not to reveal more than is necessary of our business to outsiders—but we use from 2000 to 3000 gallons of butane every week. We pay 6½ cents per gallon, including the state tax of three cents per gallon, at the refinery. We have a five-year contract for our supply of butane with one of the independent companies, though I do not care to name it, so we are assured of fuel for a considerable period. We do our own hauling from the refinery to our offices in Fresno. It costs us about one cent per gallon for hauling. We buy our gasoline at wholesale prices, but I cannot say definitely what the price has been, for the reason that it has fluctuated. However, it usually has cost us from 14½ to 16 cents per gallon delivered. You can figure for yourself, therefore, the approximate amount of our savings. You can't operate profitably and pay much more than 15 cents for fuel.

"Butane is higher in octane than gasoline, running about 120 to gasoline's 80. You could operate with as high a compression ratio as 12 to 1 if the motor would stand it.

"Our drivers like to use butane, so of course that eliminates the annoyance of complaints from them. It pleases them because it has so much more 'pep' and better pickup, considerably more power than gasoline. Also it operates much more smoothly. We tried several low-grade burners for a time, but we had to give them up. The drivers did not like them and they weren't at all satisfactory. We used about the same amount of gasoline per truck that we do butane."

Accepting Mr. Fortier's suggestion of "figuring it out for ourselves," we find that 2500 gallons of butane per week, to average his "2000 to 3000 gallons," would be more than 10,000 gallons per month. At 7½ cents per gallon, the company's outlay for a month's supply of the new fuel would be $750. The same quantity of gasoline, even at 14½ cents, to give the gasoline side of the question every advantage, would cost $1450. There is a saving of $700 a month on ten trucks. Assuming that the Fortier original outlay for equipment, a storage tank and truck installation, that is, was about $4000 for these ten trucks—Mr. Fortier said the investment was "not so much," but refused to name the amount—which is slightly above the amount charged Mr. Riske by the Butane Sales Co., It is easy to see that the savings of less than six months would cover the first cost and that thereafter there would be an annual profit through use of butane of $8,400. And this does not take into account, either, the lessened cost of oil and maintenance, which admittedly is greatly reduced to butane users.

But when all of the virtues of butane have been extolled—and they seem many—there is still a big stumbling-block to the complete happiness of

(Turn to Page 56, Please)

Table 1

Comparison for August, 1933, Operating 63 Units Over 362,800 Miles

(Figures from well-known California Storage Company)

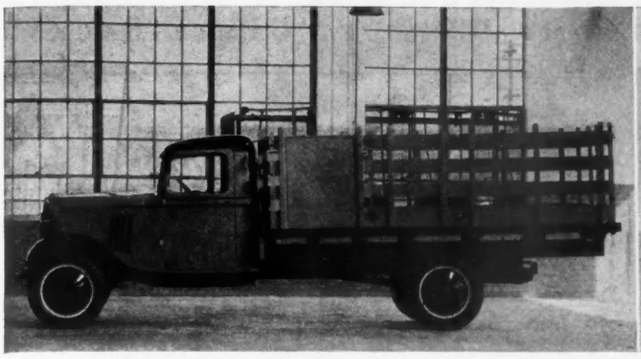
Using Gasoline	Using Butane
73,202 gal. fuel	51,829 gal. fuel
4.956 mi. per gal.	7 mi. per gal.
$.106 per gal.	$.075 per gal.
$.02138 per mi.	$.01078 per mi.
$7759—fuel cost	$3887.18—cost fuel
6559 qt. oil	1814 qt. oil
55.31 mi. per qt.	200 mi. per qt.
$.308 per gal.	$.308 per gal.
$.00139 per mi.	$.000385 per mi.
$505—oil cost	$140—cost oil

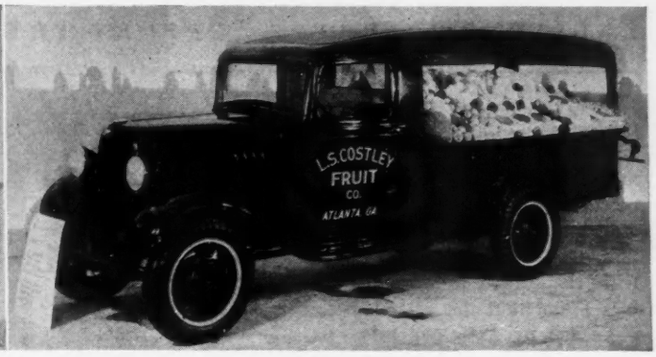
Saving over gasoline	$4,236.82
Saving over gas., per mi.	.01060
% Saving over gas. (approx.)	50%

Engine Maintenance per Mile

Gasoline	Butane	Saving
.005	.00375	25%

Fuel, lubrication and engine maintenance saving—37½%.





A stake body and a canopy express on the Chevrolet 131-in. wheelbase 1½-ton chassis

Chevrolet Moves Engines Forward In Its 1934 Line of Trucks

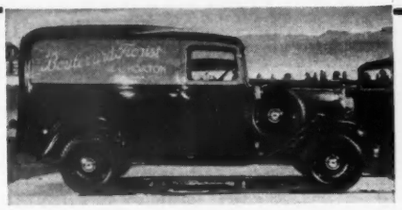
THE Chevrolet line of commercial vehicles for 1934 comprises, as before, a commercial car, a 131-in. wheelbase truck and a 157-in. wheelbase truck. The three new chassis depart more than formerly from passenger car lines in appearance and design. Radiator hoods, fenders and aprons are different and all three vehicles continue with front axles rather than knee action front wheels introduced on the 1934 passenger cars.

Wheelbase of the ½-ton job has been increased to 112 in. and the vehicle gross weight to 4400 lb. Engine displacement has not been changed but power output has been inereased, especially in the high speed range the maximum being 60 at 3000 r.p.m., compared with 56 at 2750 r.p.m. formerly. Frame design of the commercial job and both the 131 and 157 in. wheelbase trucks are new. Cabs are larger, bodies have been refined.

The engine of the commercial car has been moved forward almost 4 in. Other changes made in this chassis include: rear springs placed 1½ in. apart or nearly parallel, propeller shafts are tubular and larger in diameter. Brakes are of the double articulated shoe type.

Changes in the engine include increased bearing surface of the piston on the cylinder wall, narrower compression rings located lower on the piston. Change in combustion chamber permits the use of a higher 5.45 compression ratio. Valve seats are cooled by eight copper nozzles which direct cooling water to these points.

The truck line has a new clutch with cushion-mounted hub. Drive is taken by posts cast on the pressure plate and contacting broached edges of holes in the clutch cover. Both of the 1½-ton trucks have propeller shaft extensions with a universal joint at each end. The propeller shaft may be removed as a unit making it unnecessary to remove the axle to take out the transmission.



Chevrolet's new sedan delivery

●

New chassis depart more than ever in appearance from passenger-car line. Bodies greatly refined

Cabs are 2 in. longer, 4¾ in. wider and 1¼ in. higher above the sill. The passenger car type of drop-sill construction is now used with the doors over-lapping the sills. The engine has been shifted forward for better load distribution, the distance being 3 in. in this case.

Rear axle shafts have been increased in diameter at the bearing end. The wheel bearing is now of the double row ball type, reducing the load on the balls.

Front brakes on the 1½ ton follow the lines of the new commercial models. Braking area is now 204.8 sq. in. The cut-in system of applying the service brakes by the parking brake lever has been adopted on the 1½-ton models now also.

Frames of both 131 and 157-in. wheelbase models are entirely new. They have a higher height from the ground for increased ground and torque tube clearance, important particularly for construction, road building and farm haulage. Body loading height however has not been changed. Kick-up over the rear axle has been eliminated.

Side rails are deeper on the 131 in. model. Both models have wider side-rail flanges at the front end, at the front cross-member and back of the rear axle.

Bodies have also undergone considerable refinement. Pick-up boxes are longer, wider and higher, with rolled edge panels. Attachment to chassis, and fenders to box are more rigid. There are six body bolts instead of four.

The 157-in. stake body is made of three side sections instead of four and has a wider sign board.

Platform bodies and farm models remain unchanged. In the panel bodies side panels have been dropped with relation to the platform for better appearance. The rear quarter section has been eliminated. The main body of this panel is a one piece stamping, with a heavy gauge wheel housing spot welded on. Sponge rubber gaskets are provided between side panel and roof rail, and between inner side panel and wheel housing.

End gates on canopy express bodies are mounted on a piano type hinge, and have a center type lock handle with extension rods to the two snap type lock bolts. Partition panel is of heavier gage for driver protection against shifting of load.

Engineering Facts Support the Come-Back of "Camel-Backs"

(Continued from page 13)

the center of gravity of the vehicle, it is found that the amount of this movement of the front axle is equal to 25 per cent of the wheelbase. If the front axle is kept in its same relative position and the rear axle is moved back with respect to the center of gravity it is found that the wheelbase must be increased by 12½ per cent. If, however, the front axle is moved back by an amount equal to say 7 per cent of the wheelbase the rear axle must also be moved back 9 per cent or a net increase in wheelbase of 2 per cent.

For the very obvious reason that it is not desirable to unnecessarily increase the wheelbase length, due to its effect on turning circle and resulting maneuverability, the first alternative is preferable. While the relocation of the front axle to the extent indicated involves a departure from what has been accepted in this country for a number of years as conventional construction, there is no difficulty in visualizing the advantages which can accrue from such an arrangement and as a matter of fact the arrangement can be obtained in a very practical manner.

When automobiles were first built most passenger cars and trucks followed a form of design which incorporates the necessary general features. The relative unreliability of equipment at that time as compared to the present was a powerful factor in determining the accepted construction of locating the engine in front under a hood. At the same time, with a smaller number of vehicles in operation the question of space on the road for either operation or parking was not a vital consideration and as a result all of these earlier forms passed out of use.

• *Minds Open to Change*

However, in recent years, there has been in evidence an increasing tendency to reconsider this matter, this tendency first making its appearance in the bus field in which the introduction of the Metropolitan type offered many desirable features to the operators of bus equipment in city areas. Further, with the advent of consideration being given to the effects of wind resistance there have for several years been proponents of the idea of relocating the power plant, particularly in passenger vehicles. All of this has tended to open all minds interested in transportation to the possibilities of alternative designs.

With the experience which the organization with which the writer is connected has had in the construction of this type of vehicle, it is natural that the evidence of these changing factors was viewed with a great deal of interest. This led to a development program which has resulted in our putting into production our line of under-seat models designated as our "U" model.

FIGURE-2

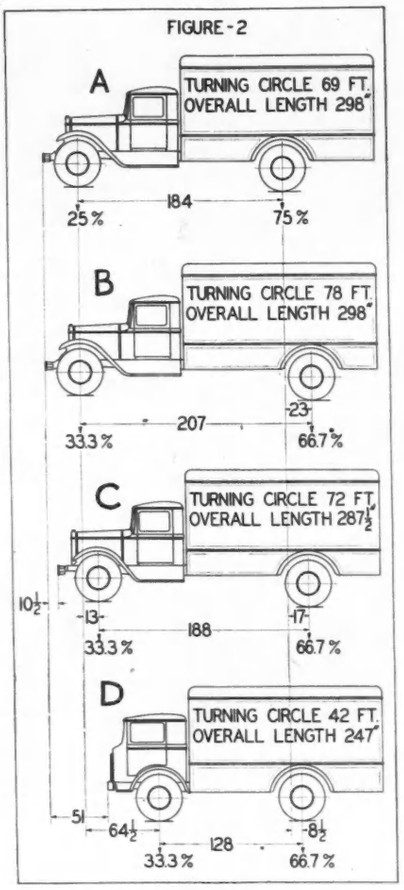


Fig. 2. Showing how different axle arrangements affect chassis design

Figure 1 is a plan view of the chassis showing the general arrangement of the unit. There are only two details in which this construction departs materially from the conventional under-the-hood construction. One is the distance type control on the transmission gearshift and the other is the separation of the radiator and fan from immediate proximity to the engine. Both of these details are readily provided for in a simple and effective manner.

Except for these two changes the major units, such as engine, transmission, axles, etc., can be used interchangeably in either this type of vehicle or the conventional, under-the-hood type. As these units have been developed from experience resulting from present day operation, without any material change, their performance and serviceability characteristics are established.

Figure 2 shows a comparison of the three different arrangements to which reference was made before and indicates the outstanding advantages which can be obtained from the under-seat arrangement. In this comparison will be noted the conventional practice based on a vehicle of 184 inch wheelbase with ¼-¾ distribution. (Sketch A.) If the attempt is made to attain 1/3-2/3 on the same construction it will be necessary to increase the wheelbase 23 inches, making a total of 207 inches, as shown in Sketch B. In the second case, by moving the front axle back 13 inches and moving the rear axle back 17 inches, a 1/3-2/3 distribution can be obtained with a wheelbase of 188 inches. (Sketch C.) In the under-the-seat model (Sketch D), due to the great shortening of the overall length and the relocation of weights resulting in a change in the center of gravity, the wheelbase is reduced to 128 inches, an actual reduction of over 30 per cent instead of only 25 per cent, as indicated by the generalized estimate given above.

It is also to be noted that merely moving the rear axle back does not change the overall length of the vehicle, but does result in a definite increase in the turning circle. In Case 2, there is a saving of about 10½ inches in overall length and a very slight increase in turning circle, while with the under-seat model there is a reduction of nearly 51 inches in overall length and a reduction of 25 feet in the turning circle diameter. These figures certainly demonstrate the importance of the considerations which have led to this development.

• *Essentials Not Sacrificed*

The operation of such a vehicle, particularly in congested areas, confirms in a very practical way the advantages which have been discussed. Desirable features such as riding quality, controllability, comfort, and accessibility have in no sense been sacrificed nor compromised by the arrangement.

The question of appearance can be determined from reference to the accompanying illustrations which it is believed indicate that while the appearance is different, it is in no sense inferior to the results of conventional practice, but add to an equally satisfactory arrangement of form and line the advantage of a unit which has the appearance of being rationally adapted to the function which it has to perform.

only ONE Hydraulic Brake

Yet 10 out of the 28 makes of cars, and 35 out of the 47 makes of trucks use LOCKHEED HYDRAULIC BRAKES

It is significant that, of all the various types of automotive brakes, Lockheed is the only hydraulic brake, and 35.7% of the car builders and 74.4% of the truck builders in America have chosen Lockheed Hydraulic Brakes. • It can mean but one thing . . . that the more than a million American motorists who have bought cars with Lockheed Hydraulic Brakes are well satisfied. • Such a group of representative owners is well worth satisfying.

HYDRAULIC BRAKE COMPANY
DETROIT, MICHIGAN

LOCKHEED HYDRAULIC
Four BRAKES *Wheel*

OFFICIALLY SERVICED THROUGHOUT THE NATION BY WAGNER ELECTRIC CORPORATION

COMMERCIAL CAR JOURNAL

NEWS

7776 Trucks for Army

Invitations for bids for 7776 trucks for the regular army and the national guard are expected to go out soon. The specifications prepared include mostly 1½-ton jobs but also cover about 2000 vehicles of 2-ton or larger capacity. Engines of six or more cylinders are specified.

Truck Registrations Off

Registrations of trucks and buses as of Dec. 31, 1933, are estimated at 3,075,114, as compared with 3,202,730 in 1932.

Consolidated Motors Personnel

Personnel of Consolidated Motors Corp., which has acquired the Relay plant and the Garford, as well as the right to use the Relay, is as follows: J. G. Wray, president; Jack Harsch, vice-president and general manager; H. A. Beeson, secretary-treasurer; R. L. Roush, in charge of truck sales.

Dodge Quadruples Sales

Dodge truck shipments for 1933 will be more than four times that of 1932, according to J. D. Burke, director of truck sales. The factory has launched an expansion program by which the company's exclusive Detroit truck factory will be materially increased. A considerable business increase is seen for 1934.

Kingham Building Plant

The Kingham Trailer Co., Louisville, Ky., is erecting a new daylight factory with 80,000 sq. ft. of floor space, to be equipped with the latest type of machinery and assembly layout.

Chevrolet Output 626,277

Chevrolet's total world production for 1933 was 626,277 units as compared with 394,000 in 1932.

New Fruehauf Branch

Fruehauf Trailer Co. has opened a factory branch at 111 Hoyt St., Saginaw, Mich., with Fred E. Boylan as manager.

Emark and Edison Merge

Emark Battery Corp. and Thos. A. Edison, Inc., have been merged and consolidated under the name Thos. A. Edison, Inc. The Emark Battery Division is under the management of Edwin D. Martin.

Kealhofer Is Promoted

Starr Kealhofer has been appointed manager of the Galveston, Texas, Goodrich Silvertown, Inc., store.

LeMoon Handles Studebakers

Nelson-LeMoon Truck Co. has been appointed distributor of Studebaker trucks in metropolitan Chicago. The company will continue to manufacture its own line of trucks.

20,263 Trucks in November

Truck production in November, 1933, totaled 20,263 units compared with 12,560 in November of 1932. Production for 11 months of 1933 was 333,331 as against 223,503 in the same period of 1932.

New Parts Concern

The Bates Ludington Co., Ludington, Mich., has been organized to manufacture replacement parts. The line will include cylinder heads for all models of Fords and Chevrolets, and intake and exhaust manifolds, clutch, flywheel and transmission housings for all Fords.

McKinstry Heads IHC

Addis E. McKinstry has been elected by the International Harvester Co. Board of Directors to succeed the late Alexander Legge as president.

Shacklett With Fruehauf

L. T. Shacklett has been appointed factory representative for Fruehauf Trailer Co. in Hartford, Conn., and vicinity.

Thomas Finegan

Thomas Finegan, 51, president of the American Redblock Corp., died in Chicago late in December following a heart attack.

Adolph C. Miller

Adolph C. Miller, 57, secretary-treasurer of Oshkosh Motor Truck, Inc., is dead. He was one of the founders of the truck company.

Joseph S. Oechsle

Joseph S. Oechsle, 39, consulting engineer of the Worthington Pump & Machinery Corp., died on Christmas Eve in Philadelphia.

Ford Reduces Prices

Ford V8 truck prices have been reduced $36 on the 131-in. wheelbase; $46 on the 157-in. wheelbase and $10 on the 112-in. commercial, according to price changes announced in this issue.

Morrison & McGill Advance

Leslie D. Morrison has been made district manager of the San Francisco and northern California district of Aluminum Industries, Inc., makers of Permite products. Robert E. McGill has become manager of the western division.

Continental Gets Dahlquist

Chas. S. Dahlquist is representing Continental Motors Corp. as eastern territory sales engineer. He was formerly with Timken Detroit Axle Co., Eaton Axle Co. and Edw. S. Budd Mfg. Co.

Aldrich Elected President

A. D. Aldrich, in charge of the Geo. S. Newton Coal Co. fleet, has been elected president of the Philadelphia Chapter of the Pennsylvania State Motor Truck Association.

"Sid" West Resigns

"Sid" West has resigned from the Diamond T Motor Car Co. with which he has been connected for the last ten years, operating out of Long Island City branch. He is vacationing in the South. Mail sent to Box 310 of the New York Athletic Club, New York, will be forwarded.

Hollinger White Manager

W. J. Hollinger has been appointed manager of the re-opened Buffalo branch of the White Co. The branch is located at 3068 Main St.

Connor With LeMoon

Thos. E. Connor, for many years factory representative of the Studebaker commercial car division, has been made sales manager of the Nelson-LeMoon Truck Co.

Black Back With Ford

Fred L. Black has rejoined the Ford Motor Co. of which he formerly was advertising manager. Details of his new connection have not been announced.

Sommerville Made Manager

R. L. Sommerville has been appointed manager of the automotive replacement sales for Exide batteries, manufactured by the Electric Storage Battery Co., Philadelphia.

COMMERCIAL CAR JOURNAL'S

TRUCK SPECIFICATIONS TABLE

The Commercial Car Journal's Truck Specifications Table is brought up to date in each issue from data supplied monthly by truck manufacturers

KEY TO ABBREVIATIONS AND REFERENCE MARKS

GENERAL

Chassis Price—Chassis price quoted applies to the standard wheelbase and specifications listed. All prices are F.O.B. factory.
***—List price not yet established. Ready next issue.

Tonnage Rating—Where a spread of ratings is given the maximum ratings are for ideal operating conditions and the minimum for extremely difficult conditions; the ranges between are for varying operating conditions.

Gross Vehicle Weight—Is chassis weight, plus body and cab, plus payload. Gross vehicle weight given for a model is based on maximum recommended tire size and not on tires listed as standard equipment.

Chassis Weight Stripped—Includes gas, oil and water and all things included in chassis price. Does not include the weight of cab.

Maximum Brake H. P. at Given R.P.M.—Is actual dynamometer reading without accessories.

Tractors—Unless given the designation N (meaning not available as tractor), all standard models may be assumed to be available as tract rs.

(A) All Torque and Brake Horsepower values listed are based on engine outputs with all Standard Equipment Accessories running and are the same values obtaining with the truck on the road in actual operation.

(N) Not available as tractor.

(T) This designation accompanying a model number indicates vehicle is specifically designed for tractor use only.

(3) **Corbitt**—Larger engines and corresponding auxiliary units provided on all models at extra cost.

(4) **Day Elder**—Model 75—1½ ton—same specifications except price—$945, and larger tire size—B6.00/20 front and DB6.00/20 rear.

(5) **Dodge**—F-61 available as special tractor truck with 146-inch wheelbase with model designation of F-60, at $2645. K-61 available as special tractor truck with 146-inch wheelbase with model designation of K-60, at ***.
(5a) **Dodge**—Model H20, ¾-1 ton, gross vehicle weight 6,000 lb., price $502, has same specifications as H30 except tires which are 7.50/17 and lighter rear springs.

(6) **General Motors**—Models T-18 to T-61 inclusive are also available for export only as coach chassis. Double reduction axles optional in Models T-43, T-43T, T-51, T-61, T-83 and T-95 at extra cost. Trailing type axles available on Model T-95 at price deduction. Optional size engines available on Models T-85, T-85H, T-95, T-110, and T-130 at varying cost.
Gramm—Larger engines and corresponding auxiliary units provided on all models at extra cost when type of service demands. Wheelbases and body mounting dimensions may change to suit special requirements. Double reduction axles available on all models except AX and BX.
Gross weight indicated for each model in the table is the straight rating.
Series CXH is supplied with Hercules JXB engine in Model CXHB and Hercules JXC in Model CXHC.

(7) **Grass Premier**—Eight cylinder engines available on following models: 835 with Lyc. GU at $1515 list; 865 with Lyc. HF at $4230; 875 with Lyc. AE at $5400.

(8) **International Harvester**—A-1, ¾ ton, same as A-2 except less spring leaves and smaller tires.

(9) **Le Moon**—Model 600 available with Lyc. AEC at same cost. Models 701 and 801 available with Waukesha 6SRL at same cost.

(10) **Sterling**—Rocker arm used in place of springs

(*) **Sterling**—These models also available equipped with Cummins Model H Diesel engine.

†**Reo**—Models 1C and 1D are the longer wheelbase editions of Models 1A and 1B. The frame dimension of both is 7x2¾x¼. They are furnished at extra cost.
††**Reo**—2J,2K same as 2H except 166 in wheelbase and price of $1695

††**Reo**—3J same as 3H except wheelbase of 170 in. and price of $2085; 3K same as 3H except 185 in. wheelbase and price of $2155. 3M same as 3H except 205 in. wheelbase.

(11) **Studebaker**—S-2 in 141 in. and 165 in. wheelbases has 6½ in. frame depth.

(12) **White**—Each model shown is furnished with different specifications for different tonnage ratings.

*—Factory governed speed 2400 r.p.m.

(13) **Marmon-Herrington**—Available with Hercules Diesel engine. Price on application.

(14) **Ford**—Rear axle ratios 5.14 and 6.6 optional on 1½-ton trucks.

MAKES—ALL

AB—American Bosch.
A LaF—American La France.
AL—Auto Lite.

B—Bendix.
BB—Borg & Beck.
BL—Brown-Lipe.
BO—Bendix front, Own rear.
Blo—Blood.
Bu or Bud—Buda.
BW—Borg Warner
BWs—Bendix front, Westinghouse rear.
C or Col—Columbia.
Car—Carter.
Ch—Chicago.
CI—Ignition by compression.
Cl or Cla—Clark.
Cle—Cleveland.
Co—Covert (transmission).
Co—Covert (clutch)
Con—Continental.
Cot—Cotta Gear.
Cum—Cummins-Diesel

Det—Detroit Lubricator.
DG—Detroit Gear and Machine.
DR—Delco Remy.

Eat—Eaton.
Ei—Eisemann.
En—Governor built in engine
EV—Electro-Vac (gov.) Pierce.

Fe—Fedders.
Fu—Fuller.

Ge—Gemmer.
GO—G. & O.

Ha—Handy (governor).
Ha—Hannum (steering gear).
HaS—American Car & Fdry.
Her—Hercules.
Hr—Harrison.
HS—Merchant & Evans (clutch).
HS—American Car & Fdry. (governor).

Jac—Saginaw.
Jo—Jones.

KP—Handy.

L—Lockheed.
Li—Lipe, W. C.
LN—Leece Neville.
Lo—Long.
LO—Lockheed front, Own rear
LW—Lockheed front, Wisconsin rear.
Lyc—Lycoming.

Mc—McCord.
Ma—Marvel.
ME—Merchant & Evans.
MM—Mechanics Mach.
Mo—Modine (radiator).
Mo—Monarch (governor).
My—Mallory.

NE—North East.
No—Not supplied.
ns—No Standard.
O or Ow—Own.
Op or Opt—Optional.
Pe—Pierce (governor).
Pe—Perfex (radiator).
PS—Peters & Snead.
RB—Robt. Bosch.
Ro—Rockford.
Ros—Ross.
Sc—Scintilla.
Sch—Wheeler-Schebler.
Shu—Shuler.
SpB—Spicer and Blood.
Spi—Spicer.
Ste or St—Sterling.
Str—Stromberg.
Til—Tillotson.
T or Tim—Timken.
TWH—Timken Wisconsin Herrington
WG—Warner Gear.
Wa—Waukesha (governor).
Wau—Waukesha.
W or Wis—Wisconsin.
Ws—Westinghouse.
Yo—Young.
Zen—Zenith.

BRAKES—SERVICE

Location

2—Two Wheels, rear only.
2/4—Two-wheel brakes effective on all four wheels through driveshaft.
4/6—Brakes on four rear wheels effective on all wheels through driveshaft.
T/4—Brake on transmission effective on all four wheels through driveshaft.
4—Four Wheels, front and rear.
4r—Four Wheels, rear only.
6—Six Wheels, front and rear.
J—Jackshaft.
P—Propeller shaft.

Type

I—Internal.
X—External.

Operation

A—Air.
D—Hydraulic and mechanical.
H—Hydraulic.
M—Mechanical.
V—Vacuum.

BRAKES—HAND

Location

C—Center of double propeller shaft.
2—Rear wheels.
4—Four wheels.
R—Worm or bevel gearshaft.
T—Transmission.
F—Driveshaft.

Type

D—Tru-Stop disk.
I—Internal.
X—External.

BRAKE DRUMS

Material

a—Cast alloy iron.
A—American Car Fdry.
C—Centrifuse
D—Dayton.
E—Ermalite.
G—Gunite.
H—Hunt Spiller.
c—Cast iron.
p—Pressed steel.
P—Pressed steel.
s—Cast steel.
(Where a combination of any of the above is used, the first reference mark applies to the front and the second to the rear drums.)

CLUTCH

Type

D—Multiple disk.
dp—Double plate.
O—Plate in oil.
P—Single plate

ENGINE

Valve Arrangement

F—Inlet valve in head; exhaust valve at side.
H—In head.
L—"L" head, valves at side.
T—Inlet and exhaust on opposite sides.

Camshaft Drive

C—Chain.
G—Gear.

Piston Material

A—Aluminum alloy.
B—Semi-steel.
C—Cast iron.
N—Nickel iron.
S—Aluminum alloy with strut.

Main Bearings

r—Rear main bearing.

Oiling System

CC—Pressure to main, connecting rod and camshaft bearings.
FP—Pressure to main, connecting rod camshaft bearings and piston pins.
PC—Pressure to mains and connecting rod bearings.
PG—Pump, gravity and splash.,
PS—Pressure with splash.

FRAME

Type

I—"I" Beam.
C—Channel.
T—Channel tapered front and rear.
L—Channel reinforced with liner.
R—Channel reinforced with both liner and fishplate.
P—Channel reinforced with plate.
TL—Channel tapered front and rear reinforced with liner.
D—Drop Center
Tf—Tapered front
X—x-Braced

FUEL SYSTEM

Fuel Feed

E—Electric pump.
G—Gravity.
M—Mechanical pump.
P—Pressure.
V—Vacuum.

REAR AXLE

Final Drive and Type

B—Bevel.
C—Chain.
D—Dead.
F—Full-floating
2—Double Reduction.
S—Spiral bevel.
W—Worm.
w/2—Worm or Double Reduction Optional.
½—Semi-floating.
¾—Three-quarter floating.

Drive and Torque

A—Radius Rods and Torque Arm.
H—Hotchkiss. (springs)
R—Radius Rods
T—Torque Arm.
U—Torque Tube.

SPRINGS

Auxiliary Type

½—Semi-elliptic above or below main springs.
¼—Quarter elliptic.
C—Coil spring.
N—No.
O—Optional.

TIRES

B—Balloon.
DB—Dual Balloons.
P—High Pressure Pneumatics.
DP—Dual High Pressure Pneumatics
S—Solids.
DS—Dual Solids.
*—Pneumatics at extra cost.

TRANSMISSION

Location

A—Amidships.
J—Unit with jackshaft.
U—Unit with engine.

Auxiliary Location

No—Not furnished.
O2—2 speed axle unit optional at extra cost.
Op—Optional at extra cost.
A—Amidships.
R—Rear of amidships main transmission.
U—Unit with engine.

WHEELS DRIVEN

2C—Center pair of rear wheels.
2R—Rear pair of rear wheels.
4F—Front and center pair of rear wheels.
4R—Four rear wheels.
6—Six wheels

Line Number	MAKE AND MODEL	GENERAL (See Keynote) Tonnage Rating	Chassis Price	Standard Wheelbase	Max. W. B. Furnished	Gross Vehicle Weight	TIRE SIZE Chassis Wt. (Stripped)	Front	Rear	MAJOR UNITS ENGINE Make and Model	No. of Cylinders Bore and Stroke	TRANSMISSION Make and Model	Location and Forward Speeds	Aux. Location and Speeds	REAR AXLE Make and Model	Gear and Type	Drive and Torque	GEAR RATIOS In High	In Low	FRAME Side Rail Dimensions	Type
1	A.C.F.	160	6950	186	222	26000	10170	B9.75/22	B9.75/22	HaS 160	6-4½x5½	BL 1714	U 4	Op	Tim 76730	2F	R	7.46	52.7	8x3x¼	P
2		175B	8300	186	222	26000	10750	B10.50/22	B10.50/22	HaS 175	6-5x6	BL 714	U 4	Op	Tim 76730	2F	R	7.46	38.6	8x3x¼	P
3		175A	8800	186	240	30000	11610	B10.50/24	B10.50/24	HaS 175	6-5x6	BL 714	U 4	Op	Tim 79730	2F	R	7.48	38.7	8x3x¼	P
4	Armleder	11Ha	1295	156	195	11500	4850	B6.50/20	DB6.50/20	Con 16C	6-3¾x4⅝	BL 35	U 4	No	Tim	BF	H	5.83	31.2	6x3x¼	P
5		21Ha	2185	160	207	15300	5450	B8 25/20	DB8 25/20	Her WXC	6-4x4½	Own	U 5	No	Tim	BF	H	6.06	38 5	6x3x¼	P
6		31Ha	2695	146	213	19500	5750	B9.00/20	DB9.00/20	Her WXC	6-4x4½	Fu 5A38	U 5	No	Tim	BF	H	6.02	39.2	7x3x¼	P
7		41Ha	3295	146	227	23000	6800	B9.75/20	DB9.75/20	Her WXC	6-4x4½	Fu 5A38	U 5	No	Wis	2F	R	7.14	46.4	7x3x¼	P
8		61Ha	5-7	4295	154	235	25500	7600	B9.75/20	DB9.75/20	Her WXC2	6-4½x4½	Fu 5A38	U 5	No	Own	2F	R	7.07	49.7	8½x3x¼	P
9		71Ha	8-11	5895	152	247	35000	9820	B10.50/24	DB10.50/24	Her RXC	6-4⅝x5¼	Fu 5A53	U 5	No	Wis	2F	R	7.07	49.8	8½x3x¼	P
10		(T) TRD	10	4150	148	174	35000	7100	B9.00/20	DB9.00/20	Her YXC	6-4⅝x4¾	Fu 5A53	U 5	No	Own	2F	R	7.8	56.8	7x3x¼	P
11		(T) TRDA	12	4350	148	174	39000	7226	B9.75/20	DB9.75/20	Her YXC3	6-4⅝x4¾	Fu 5A53	U 5	No	Own	2F	R	7.8	56.8	7x3x¼	P
12		(T) TRDB	15	4595	148	174	45000	7326	B9.75/20	DB9.75/20	Her RXC	6-4⅝x5¼	Fu 5A53	U 5	No	Wis	2F	R	7.8	56.8	7x3x¼	P
13	Autocar	RG	2½	3000	150	192		6100	P34x7	DP34x7	Own R	6-3¾x4¾	Own T	U 4	No	Own D	2F	H	6.21	39.3	8x3x¼	T
14		D	3	3500	150	192		6140	P34x7	DP34x7	Own SD	6-4x4¾	Own T	U 4	No	Own D	2F	H	6.21	39.3	8x3x¼	T
15		DF	3½	3950	150	192		7010	B9.00/20	DB9.00/20	Own SD	6-4x4¾	Own T	U 4	No	Own TE	2F	H	6.43	40.7	8x3x¼	T
16		DH	4	4150	150	174		7400	P36x8	DP36x8	Own SD	6-4x4¾	Own T	U 4	No	Own N	2F	H	8.57	54.3	8x3x¼	T
17		N	4	4650	191	227		8275	B9.75/20	DB9.75/20	Own SCH	6-4¼x4¾	Own D	U 5	No	Own N	2F	H	7.20	45.6	9x3x¼	T
18		NF	5	4750	151	227		8370	B9.75/22	DB9.75/22	Own SCH	6-4¼x4¾	Own D	U 5	No	Own TF	2F	H	7.20	42.1	9x3x¼	T
19		S	5	5500	168	168		9675	B9.75/22	DB9.75/22	Own SCH	6-4¼x4¾	Own T	U 4	A 3	Own CG	2F	H	8.52	54.0	9x3x¼	T
20		C	7½	6650	158	176		11784	B10.50/24	DB10.50/24	Own SCM	6-4½x4¾	BL 734	U 4	A 3	Wis 78720	2F	H	9.92	121.	10½x3x¼	T
21		CE	7½	6000	172	203		10300	S36x7	DS40x8	Own SCM	6-4½x4¾	Own T	U 4	No	Own C	2F	R	8.57	52.6	9x3x¼	T
22		CBS	7½	6200	203	203		9800	P42x9	DP42x9	Own SCM	6-4½x4¾	Own B	A 4	No	Own C	2F	H	8.57	52.6	9x3x¼	T
23		T	7½	5900	192	242		9680	B10.50/22	DB10.50/22	Own SCM	6-4½x4¾	Own D	U 5	No	Own TG	2F	H	7.20	88.5	9x3x¼	T
24		TE	8½	6300	214	228		10020	B9.75/22	DB9.75/22	Own SCM	6-4½x4¾	BL 7351	U 5	No	Own CG	2F	H	7.20	87.6	10½x3x¼	T
25	(Eng.und.seat)	UD	3	3500	97	145		6740	P34x7	DP34x7	Own SD	6-4x4¾	Own T	U 4	No	Own H & D	2F	H	6.21	39.3	8x3x¼	T
26		UDF	3½	3950	127	145		7655	B9.00/20	DB9.00/20	Own SD	6-4x4¾	Own T	U 4	No	Own TE	2F	H	6.43	40.7	8x3x¼	T
27		UN	4	4650	96	163		8635	B9.75/20	DB9.75/20	Own SCH	6-4¼x4¾	Own D	U 5	No	Own C & N	2F	H	7.20	45.6	8x3x¼	T
28		UNF	5	4850	128	163		9200	B9.75/22	DB9.75/22	Own SCH	6-4¼x4¾	Own D	U 5	No	Own TF	2F	H	7.20	42.1	9x3x¼	T
29		US	5	5300	109	109		9115	B9.75/22	DB9.75/22	Own SCH	6-4¼x4¾	Own T	U 4	No	Own CG&TG	2F	H	7.20	45.6	9x3x¼	T
30		UT	6	5900	128	163		9660	B10.50/22	DB10.50/22	Own SCM	6-4½x4¾	Own D	U 5	No	Own CG&TG	2F	H	7.20	45.6	9x3x¼	T
31		UTE	8½	6300	145	163		10525	B9.75/22	DB9.75/22	Own SCM	6-4½x4¾	Own T	U 4	A 3	Own CG&TG	2F	H	7.20	45.6	10½x3x¼	T
32	Available	W-120	1½	1245	Op	Op	11200	4000	B6 50/20	DB6.50/20	Wau BL	6-3½x4¼	WG T9	U 4	No	Tim 53200	SF	H	6.6	42.2	10x2½x¼	TX
33		W-170	2½	1620	Op	Op	13400	4700	B7.50/20	DB7.50/20	Wau BL	6-3½x4¼	WG T9	U 4	No	Tim 54300	SF	R	6.8	43.5	10x2½x¼	TX
34		W-210	2½	1720	Op	Op	13400	4800	B7.50/20	DB7.50/20	Wau BK	6-3¾x4¼	BL 234	U 4	No	Tim 54300	SF	R	6.8	43.5	10x2½x¼	TX
35		W240	3	1975	Op	Op	16300	5400	B8.25/20	DB8.25/20	Wau BK	6-3¾x4¼	BL 234	U 4	No	Tim 56200	SF	R	7.4	47.4	12x2½x¼	TX
36		W300	3½	2750	Op	Op	20700	7000	B9.00/20	DB9.00/20	Wau 6-110	6-4x4¾	Fu 5A-380	U 5	No	Tim 58205	SF	R	7.8	54.6	12x2½x¼	TX
37		W400	4	3750	Op	Op	25500	8200	B9.75/20	DB9.75/20	Wau 6-125	6-4⅜x5½	Fu 5A-530	U 5	No	Tim 65720H	WF	R	8.5	55.6	12x2½x¼	TX
38	Biederman	10	1-1½	895	130	160	6000	2800	B6.50/18	B6.50/18	Con 25A	6-3¾x4	BL 124	U 4	No	Cla B373	BF	R	5.10	33.6	7x3x¼	T
39		20	1-1½	1195	145	175	8000	3200	B6.00/20	DB6.00/20	Con 25A	6-3¾x4	BL 124	U 4	No	Cla B373	BF	R	6.37	39.4	7x3x¼	T
40		25	1½-2	1250	160	175	10000	3450	B6.50/20	DB6.50/20	Con 25A	6-3¾x4	BL 124	U 4	No	Cla B373	BF	R	6.37	39.4	7x3x¼	T
41		30	1½-2	1495	163	178	12000	4100	B7.50/20	DB7.50/20	Con 25A	6-3¾x4	BL 124	U 4	No	Cla B611	BF	R	6.37	39.4	7x3x¼	T
42		35	2-2½	1850	146	188	12000	4680	B7.50/20	DB7.50/20	Her JXC	6-3¾x4¼	BL 234	U 4	Op	Cla B611	BF	R	6.37	40.8	7x3x¼	T
43		40	2½-3	2100	158	188	16000	4840	B8.25/20	DB8.25/20	Her JXC	6-3¾x4¼	BL 234	U 4	Op	Cla B611	BF	R	6.37	40.8	8x3x¼	T
44		50	2½-3	2400	176	188	20000	5600	B9.00/20	DB9 00/20	Her JXC	6-3¾x4¼	BL 234	U 4	Op	Cla B805	BF	R	6.42	41.2	8x3x¼	T
45		55	3-3½	2750	180	200	20000	6450	B9.00/20	DB9 00/20	Con E602	6-4½x4½	BL 524	U 4	Op	Cla B805	BF	R	6.42	46.7	8x3x¼	T
46		60	3½-5	3150	170	200	24000	6820	B9.75/20	DB9.75/20	Con E602	6-4½x4½	BL 524	U 4	Op	Cla B805	BF	R	7.17	52.1	8x3x¼	T
47		70	3½-5	3600	150	210	24000	7530	B9.75/20	DB9 7 20	Con E602	6-4½x4½	BL 524	U 4	Op	Wis 1237	2F	R	8.00	58.7	8x3½x¼	T
48		80	5-7	3900	150	210	28000	7800	B10.50/20	DB10.50/20	Con E603	6-4¼x4½	BL 524	U 4	Op	Wis 1237	2F	R	8.94	65.1	8x3½x¼	T
49	Brockway	80	1½-2	1185	149	168	10500	4035	B6.50/20	DB6.50/20	Con 26B	6-3¾x4	Wa T9	U 4	No	Tim 53200H	SF	H	5.66	36.2	7x2½x¼	T
50		90	2-2½	1485	149	186	12500	4480	B7.00/20	DB7.00/20	Con 28B	6-3½x4⅝	Wa T9	U 4	No	Tim 54300H	SF	H	5.83	37.4	7x2½x¼	T
51		100	2-3	1800	168	200	15000	4985	B7.50/20	DB7.50/20	Con 25B	6-3½x4⅝	Fu	U 5	No	Tim 54300H	SF	H	5.83	46.0	7x2½x¼	T
52		120	2-3	2090	156	188	15000	5640	B7.50/20	DB7.50/20	Con 30B	6-4x4½	BL 314	U 4	No	Tim 54300H	SF	H	5.83	38.5	7½x3x¼	T
53		140	2½-3½	2690	156	200	17500	6385	B8.25/20	DB8.25/20	Con 30B	6-4x4½	BL 314	U 4	Op	Wis 4916L	2F	R	6.66	43.5	7½x3x¼	T
54		150	2½-3½	2540	188	200	18500	6000	B8.25/20	DB8.25/20	Con 32B	6-4½x4½	Fu 5A38	U 5	Op	Tim 56200H	SF	R	5.71	35.0	7½x3x¼	T
55		141	3-4	3175	170	200	19500	7450	B9.00/20	DB9.00/20	Con 30B	6-4x4½	BL 314	U 4	Op	Wis 70000L	2F	R	7.0	46.2	8x3x¼	T
56		160	3½-4	3175	188	200	21000	7500	B9.00/20	DB9.00/20	Con 32B	6-4½x4½	Fu 5A38	U 5	Op	Tim 58205H	SF	R	6.14	48.5	8x3x¼	T
57		170	3-4	3450	170	212	19500	7700	B9.00/20	DB9.00/20	Con 33B	6-4½x4¾	BL 5352	U 5	Op	Wis 70000L	2F	R	5.78	44.5	8x3x¼	T
58		175	3-4	3850	170	224	24000	7900	B9.00/20	DB9.00/20	Con 34B	6-4¾x4¾	BL 5352	U 5	Op	Wis 70000L	2F	R	5.78	44.5	8x3x¼	T
59		195	5	4000	170	224	24000	8540	B9.75/20	DB9.75/20	Con 33B	6-4½x4¾	BL 5352	U 5	Op	Wis 1337BH	2F	R	5.63	43.4	8½x3x¼	T
60		220	7½	4700	170	224	28000	8980	B10.50/20	DB10.50/20	Con 34B	6-4¾x4¾	BL 5352	U 5	Op	Wis 1737KH	2F	R	5.75	44.3	8½x3x¼	T
61		260	7½ -10	5850	212	240	30000	9585	B10.50/22	DB10 50/22	Con 35B	6-4½x5½	Fu MHU	U 4	Op	Wis 1737KH	2F	R	8.05	50.7	8½x3½x¼	T
62		260S	10	6200	212	240	34000	10075	B10.50/24	DB10.50/24	Con 35B	6-4½x5¼	Fu MHU	U 4	Op	Wis 1737KH	2F	R	8.05	50.7	8½x3x¼	B
63		V-1200	15	10500	156	240	60000	12400	B11.25/22	DB11.25/22	A La F V12	12-4x5	BL 7351	U 5	Op	Wis 1910W	2F	R	7.96	49.8	10x3x¼	T
64	Chevrolet	Comm'l	½	330	109	109	4100	1995	B5.25/18	B5.25/18	Own	6-3¼x4	Own	U 3	No	Own	S½	U	4.11	12.4	5x2½x¼	C
65		Utility	1½	480	131	131	8300	2830	P30x5	P32x6	Own	6-3¼x4	Own	U 4	No	Own	S½	U	5.43	39.2	6½x2½x¼	C
66		Utility	1½	510	157	157	8300	2920	P30x5	P32x6	Own	6-3¼x4	Own	U 4	No	Own	S½	U	5.43	39.2	7x2½x¼	C
67	Corbitt (3)	8B	1½	980	134	134	8500	3200	B6.00/20	P32x6	Con W10	4-3¼x4¼	Ow 8T	U 4	No	Own 8R	SF	H	5.4	38.4	5½x3¼x¼	P
68		8B6	1½	1080	136	136	8500	3275	B6.00/20	P32x6	Con 25A	6-3¾x4	Ow 8T	U 4	No	Own 8R	SF	H	5.4	38.4	5½x3¼x¼	P
69		10B6	1½-2	1310	171	191		3950	B6.50/20	DB6.50/20	Con 25A	6-3¾x4	BL 214	U 4	No	Tim 53200H	SF	H	Op	Op	5½x3¼x¼	T
70		9B6	1½-2½	2185	152	183		4200	P32x6	DP32x6	Con 20C	6-3½x4⅝	BL 224	U 4	No	Tim 54200H	SF	H	5.57	27.8	7x3½x¼	T
71		12B6	2-3	3060	163	220		4870	B7.50/20	DB7.50/20	Con E601	6-3⅞x4½	BL 334	U 4	No	Tim 56200H	SF	H	Opt	Opt	7x3½x¼	T
72		12W6	2-3	2950	165	220		4910	B7.50/20	DB7.50/20	Con E601	6-3⅞x4½	BL 334	U 4	No	Tim 64800H	WF	H	Opt	Opt	7x3½x¼	T
73		15B6	2½-3½	3740	174	220		5870	P34x7	DP34x7	Con E601	6-3⅞x4½	BL 334	U 4	No	Tim 58200H	SF	H	Opt	Opt	7x3½x¼	T
74		15W6	2½-3½	3850	183	224		6160	P34x7	DP34x7	Con E601	6-3⅞x4½	BL 334	U 4	No	Tim 65200H	w/2F	H	Opt	Opt	7x3½x¼	T
75		18	2½-4	4400	178	230		8100	P36x8	DP36x8	Con E602	6-4½x4½	BL 334	U 4	No	Tim 65720H	w/2F	H	Opt	Opt	8x3½x¼	T
76		24	3½-5	5115	195	230		9200	B9.75/20	DB9.75/20	Con E603	6-4¼x4½	BL 60	A 7	No	Tim66720H	w/2F	H	Opt	Opt	8x3½x¼	T
77		33	5-7½	6160	195	230		10000	P40x10	DP40x10	Con 21R	6-4⅝x4¾	BL 60 Max	A 7	No	Tim68720TW	w/2F	H	Opt	Opt	8x3x¼	T
78		(T) 10B6T	3-5	1650	(3)	(3)		3950	B6.50/20	DB6.50/20	Con 20C	6-3½x4⅝	BL 224	U 4	No	Tim 53200H	SF	H	Opt	Opt	5½x3½x¼	T
79		(T) 9B6T	4-6	2600	(3)	(3)		4200	B7.50/20	DB7.50/20	Con E601	6-4¼x4½	BL 334	U 4	No	Tim 54200H	SF	H	Opt	Opt	7x3½x¼	T
80		(T) 12BT6	4-7	3465	(3)	(3)		4870	B8.25/20	DB8.25/20	Con E602	6-4½x4½	BL 335	U 4	No	Tim 56200H	SF	H	Opt	Opt	7x3½x¼	T
81		(T) 15B6T	5-8	4875	(3)	(3)		5870	B9.00/20	DB9.00/20	Con 21R	6-4⅝x4¾	BL 335	U 5	No	Tim 58200H	SF	H	Opt	Opt	7x3½x¼	T
82		(T) 18D6T	8-10	5500	(3)	(3)		8100	B9.75/20	DB9.75/20	Con 22R	6-4½x5¼	BL 535	U 5	No	Tim 75720H	2F	H	Opt	Opt	8x3½x¼	T
83		(T) 24D6T	10-15	6500	(3)	(3)		9200	B10.50/20	DB10.50/20	Con 16H	6-4¾x5¾	BL 7212	U 4	U3	Tim 66720W	2F	H	Opt	Opt	8x3x¼	C
84	Day-Elder (4)	75	1½	945	135	156	8500	3700	B6.00/20	B6.50/20	Her JXA	6-3¾x4¼	WG T9	U 4	No	Tim 53200H	BF	H	5.66	36.2	5½x3¼x¼	C
85		85	2	1195	135	168	9500	4000	B6.00/20	DB6.50/20	Her JXB	6-3¾x4¼	WG T9	U 4	No	Tim 53200H	BF	H	5.66	36.2	5½x3½x¼	C
86		110	2½	1495	156	186	11500	4800	B7.00/20	DB7.00/20	Her JXC	6-3¾x4¼	WG T9	U 4	No	Tim 54200H	BF	H	5.83	37.3	7x3¼x¼	C
87		130	3	1995	157	199	13000	6200	B7.50/20	DB7.50/20	Her WXC	6-4x4½	BL 334	U 4	No	Tim 56200H	BF	H	6.17	37.9	7x3½x¼	C
88		160	3½	2445	165	204	17500	6400	B7.50/20	DB9.00/20	Her WXC3	6-4¼x4½	BL 334	U 4	No	Tim 58200H	BF	R	6.83	41.9	9x3½x¼	C
89		200	4	2895	165	204	20000	7200	B9.00/20	DB9.00/20	Her WXC3	6-4¼x4½	BL 334	U 4	No	Tim 65720H	WF	R	7.75	47.6	9x3½x¼	C
90		240	5	3895	162	234	28500	9500	B10.50/20	DB10.50/20	Her RXC	6-4⅝x5¼	BL 534	U 4	No	Tim 66720H	WF	R	8.20	52.1	10x3¼x¼	C
91	Diamond T	210SF	1½	575	135	158	8500	3250	B5.50/20	B6.50/20	Her JXA	6-3¾x4¼	WG T9	U 4	No	Cla B364	S½	H	5.4	34.6	7x2½x½	T
92		210FF	1½	595	135	158	8500	3250	B5.50/20	B6.50/20	Her JXA	6-3¾x4¼	WG T9	U 4	No	Cla B373E	SF	H	Opt	Opt	7x2½x½	T
93		211SF	1½	595	135	158	8500	3250	B5.50/20	B6.50/20	Her JXA	6-3¾x4¼	WG T9	U 4	No	Cla B364	S½	H	5.4	34.6	7x2½x½	T
94		211FF	1½	615	135	158	8500	3250	B5.50/20	B6.50/20	Her JXA	6-3¾x4¼	WG T9	U 4	No	Cla B373E	SF	H	Opt	Opt	7x2½x½	T
95		226	1½	725	135	158	10000	3500	B6.00/20	DB6.00/20	Her JXA	6-3¾x4¼	WG T9	U 4	No	Cla B410	SF	H	Opt	Opt	7x2½x½	T
96		241	1¾	325	137	179	10000	3500	B6.00/20	P32x6	Her JXA	6-3¾x4¼	WG T9	U 4	No	Cla B410	SF	H	Opt	Opt	8x3x½	T
97		311	2	1025	155	179	12000	4200	B6.50/20	DB6.50/20	Her JXB	6-3¾x4¼	WG T9	U 4	No	Cla B613	SF	H	Opt	Opt	8x3x½	T
98		261	2	975	155	179	11000	4000	B6.50/20	DB6.50/20	Her JXA	6-3¾x4¼	WG T9	U 4	No	Cla B613	SF	H	Opt	Opt	8x3x½	T
99		351	2½	1325	155	179	14000	4700	B7.00/20	DB7.00/20	Her JXC	6-3¾x4¼	Cla R103	U 5	No	Cla B642	SF	H	Opt	Opt	8x3x½	T
100		326B	2½	1225	155	179	13000	4600	B7.00/20	DB7.00/20	Her JXB	6-3¾x4¼	WG T9	U 4	No	Cla B642	SF	H	Opt	Opt	8x3x½	T
101		326DR	2½	1395	155	179	13000	4600	B7.00/20	DB7.00/20	Her JXB	6-3¾x4¼	WG T9	U 4	No	Wis 4916L	2F	H	Opt	Opt	8x3x½	T
102		410A	3	1795	160	194	15000	5400	B7.50/20	DB7.50/20	Her WXC	6-4x4½	Cla R909	U 5	No	Cla B642	SF	H	Opt	Opt	6½x3x¼	P
103		376	3	1695	155	179	15000	5000	B7.50/20	DB7.50/20	Her JXC	6-3¾x4¼	Cla R103	U 5	No	Wis 4916L	2F	H	Opt	Opt	8x3x½	T
104		510	4	2095	168	201	18000	6400	B7.00/20	DB8.25/20	Her WXC	6-4x4½	Cla R909	U 5	No	Tim 58205H	SF	H	Opt	Opt	6½x3x¼	P
105		425	4	2395	160	194	18000	6200	B8.25/20	DB8.25/20	Her WXC	6-4x4½	Cla R909	U 5	No	Wis 70000	2F	R	Opt	Opt	6½x3x¼	P
106		603A	5	3300	169	230	20000	8100	B9.00/20	DB9.00/20	Her YXC	6-4⅜x4¾	BL5351	U 5	Op	Wis 1237H	2F	R	Opt	Opt	6½x3x¼	P
107		525	5	2695	168	201	20000	7200	B9.00/20	DB9.00/20	Her WXC3	6-4¼x4½	Cla R909	U 5	No	Wis 1237H	2F	R	Opt	Opt	6½x3x¼	P
108		740	5-6	3900	178	232	22000	8500	B9.75/20	DB9.75/20	Her RXB	6-4½x5¼	BL5351	U 5	Op	Wis 1237H	2F	R	Opt	Opt	7½x3½x¼	P
109		750	5-7	4600	178	232	28000	10000	B9.75/22	DB9.75/22	Her RXC	6-4⅝x5¼	Co 8A5	A 5	Op	Wis 1737 KW	2F	R	Opt	Opt	7½x3½x¼	P
110		750H	5-7	4200	178	232	28000	10000	B9.75/20	DB9.75/20	Her RXC	6-4⅝x5¼	Co 8A5	A 5	Op	Wis 1737H	2F	R	Opt	Opt	7½x3½x¼	P
111		1515	7½	6800	171	Op	36000	12000	B10.50/24	DB10.50/24	Her HXB	6-5x6	BL 744	A 4	A 3	Wis 79730	2F	R	Opt	Opt	9x3¼x¼	P
112	Differential	E-131	2½	3200	160	160	18100	5100	B9.00/20	DB9.00/20	Lyc ASD	6-3¼x4½	BL 314	U 4	No	Tim 58200	BF	H	7.8	51.4	12x2½x¼	P
113	Dodge Bros.	HC	Com'l	340	111			1775	B5.25/17	B5.25/17	Own	6-3¼x4⅜	Own	U 3	No	Own	S½	H	4.37	12.2	5x2x¼	X
114		KC	Com'l	***	111			1785	B5.27/17	B5.25/17	Own	6-3¼x4⅜	Own	U 3	No	Own	S½	H	4.11	11.5	5x2x¼	X
115		HCL	Com'l	365	119			1805	B5.25/17	B5.25/17	Own	6-3¼x4⅜	Own	U 3	No	Own	S½	H	4.37	12.2	5½x2x½x¼	X
116		KCL	Com'l	***	119			1815	B5.25/17	B5.25/17	Own	6-3¼x4⅜	Own	U 3	No	Own	S½	H	4.11	11.5	5½x2x½x¼	X
117		H20	¾-1	502	131	157	6075	2667	B7.00/20	B7.00/20	Own	6-3¼x4⅜	Own	U 4	No	Own	8F	H	5.85	37.4	6½x2x½x¼	C
118		K20	¾-1	***	131	157	6075	2667	B6.00/20	P32x6	Own	6-3¼x4⅜	Own	U 4	No	Own	8F	H	4.87	31.2	6½x2x½x¼	C
119		KD20	¾-1	***	131	157	6075	2702	B6.00/20	P32x6	Own	6-3¼x4⅜	Own	U 4	No	Own	8F	H	4.87	31.2	6½x2x½x¼	C
120		K22	1	***	140		6800	2710	B7.00/20	B7.00/20	Own	6-3½x4½	Own	U 5	No	Own	8F	H	5.66	40.0	8x2½x¼	C
121		H30	1½-2	490	131	157	8400	2612	B6.00/20	P32x6	Own	6-3½x4½	Own	U 4	No	Own	8F	H	5.85	37.4	6½x2x½x¼	C
122		K30	1½-2	***	131	157	8400	2612	B6.00/20	P32x6	Own	6-3½x4⅜	Own	U 4	Op	Own	8F	H	4.87	31.2	6½x2x½x¼	C
123		(Cont.) K32	1½-2	***	136	161	10500	2850	B6.00/20	P32x6	Own	6-3½x4⅜	Own	U 4	Op	Own	8F	H	5.12	32.7	7x2½x¼	C

Line Number	ENGINE DETAILS: Piston Displacement	Compression Ratio	Torque lb. ft.	N.A.C.C. Rated H.P.	Max. Brake H.P. at R.P.M. Given	Valve Arrangement	Camshaft Drive	Piston Material	Main Bearings: Number and Diameter	Main Bearings: Length	Oiling System Type	Governor Make	Fuel Syst.: Carburetors Make	Fuel Syst.: Fuel Feed	Electrical: Ignition System Make	Electrical: Generator, Starter Make	Clutch Type and Make	Radiator Make	Universals Make	Front Axle: Make and Model	Steering Gear Make	Brakes: Service: Make, Location Type, Operation	Brakes: Service: Lining Area	Brakes: Service: Drum Material	Brakes: Hand Location, Type	Body Mounting Data: Cab to Rear of Frame	Body Mounting Data: Cab to Rear Axle	Body Mounting Data: Width of Frame	Springs: Front	Springs: Rear	Springs: Auxiliary Type
1	468	4.4	322	43.3	120–2200	H	C	A	4–2¾	10¾	CC	Ha	Zen	V	DR	DR	P.BL	Lo	Spi	Tim 27451	Ros	O4IA	720	A	CD	172	102	33½	42x3	56x4	½
2	707	4.4	500	60.	175–2200	H	C	A	7–3¼	14½	CC	Ha	Zen	M	DR	DR	dp.Lo	Lo	Spi	Tim 27451	Ros	O4IA	720	A	CD	172	102	33½	42x3	56x4	½
3	707	4.4	500	60.	175–2200	H	C	A	7–3¼	14½	CC	Ha	Zen	M	DR	DR	dp.Lo	Lo	Spi	Tim 27451	Ros	O4IA	816	A	CD	172	102	33½	42x3	56x4	½
4	248	5.0	150	27.3	65–2600	L	G	C	7–2⅝	10⅜	FP	No	Str	M	DR	DR	D.BL	Yo	Spi	Tim	Ros	L4IH	380	G	TX	129½	Opt	31½	40x2½	50x3	½
5	539	4.7	225	38.4	73–2200	L	G	C	7–2⅝	13¼	PC	Mo	Str	M	AL	AL	D.BB	Yo	Spi	Tim	Ros	L4IHV	452	G	TX	129½	Opt	31½	40x2½	50x3	½
6	339	4.7	225	38.4	73–2200	L	G	C	7–2⅝	13¼	PC	Mo	Str	M	AL	AL	D.Fu	Yo	Spi	Tim	Ros	L4IHV	578	G	TX	106	Opt	31½	40x2½	62⅝x2½	N
7	339	4.7	225	38.4	73–2200	L	G	C	7–2⅝	13¼	PC	Mo	Str	M	AL	AL	D.Fu	Yo	Spi	Tim	Ros	L4IHV	658	G	TX	106	Opt	31½	40x2½	62⅝x2½	N
8	360	4.7	238	40.3	80–2200	L	G	C	7–3	15	PC	Mo	Str	M	AL	AL	D.Fu	Yo	Spi	Shu	Ros	L4IHV	768	H	TX	106	Opt	31½	41x2½	62⅝x2½	N
9	529	4.4	355	51.2	115–2200	L	G	C	7–3	15	PC	Mo	Str	M	AL	AL	D.Fu	Yo	Spi	Shu	Own	Ws4IA	847	G	TD	118	Opt	31½	41x2½	62⅝x3	N
10	428	4.4	280	45.9	93–2200	L	G	C	7–3	15	PC	Mo	Str	M	AL	AL	D.Fu	Yo	Spi	Shu	Ros	L4IHV	893	H	TD	93⅞	Opt	31½	41x2½	62⅝x3	N
11	478	4.4	318	51.2	103–2200	L	G	C	7–3	15	PC	Mo	Str	M	AL	AL	D.Fu	Yo	Spi	Shu	Ros	L4IHV	893	H	TD	92⅞	Opt	31½	41x2½	62⅝x3	N
12	529	4.4	355	51.2	115–2200	L	G	C	7–3	15	PC	Mo	Str	M	AL	AL	D.Fu	Yo	Spi	Shu	Ros	L4IHV	893	H	TD	93⅞	Opt	31½	41x2½	62⅝x3	N
13	314	5.2	213	33.7	75–2400	L	G	C	7–3	12⅝	FP	Ow	Str	M	DR	DR	dp.Lo	GO	Spi	Tim 31000	Ros	LO4IDV	450	c	2I	88⅜	60⅜	34⅛	40x2½	54x3	½
14	358	5.2	240	38.4	84–2500	L	G	C	7–3	12⅝	FP	Ow	Str	M	DR	DR	dp.Lo	GO	Spi	Tim 33000	Ros	LO4IDV	450	c	2I	88⅜	60⅜	34⅛	42⅛x3	54x3	½
15	358	5.2	240	38.4	84–2500	L	G	C	7–3	12⅝	FP	Ow	Str	M	DR	DR	dp.Lo	GO	Spi	Tim 35000	Ros	LO4IDV	519	c	2I	88⅜	60⅜	34⅛	42⅛x3	54x3	½
16	358	5.2	240	38.4	84–2500	L	G	C	7–3	12⅝	FP	Ow	Str	M	DR	DR	dp.Lo	GO	Spi	Tim 35000	Ros	LO4IDV	519	c	2I	88⅜	60⅜	34⅛	42⅛x3	54x3	½
17	404	5.1	271	43.4	94–2500	L	G	C	7–3	14½	FP	Ow	Str	M	DR	DR	dp.Lo	GO	Spi	Tim 35000	Ros	LO4IDV	519	c	FD	188½	102¼	34½	42x3	53x3	½
18	404	5.1	271	43.4	94–2500	L	G	C	7–3	14½	FP	Ow	Str	M	DR	DR	dp.Lo	GO	Spi	Tim 35000	Ros	LO4IDV	519	c	FD	89¾	61⅜	34½	42¼x3	53½x4	½
19	404	5.1	271	43.4	94–2500	L	G	C	7–3	14½	FP	Ow	Str	M	DR	DR	dp.Lo	GO	Spi	Tim 26450	Ros	LO4IDV	543	c	FD	161⅝	82¼	34½	41⅞x3	53½x4	½
20	453	5.1	309	48.6	101–2400	L	G	C	7–3	14½	FP	Ow	Str	M	DR	DR	dp.Lo	GO	Spi	Tim 27450	Ros	LO4IDV	660	c	FD	115⅞	71½	34½	41⅜x3	54⅜x4	½
21	453	5.1	309	48.6	101–2400	L	G	C	7–3	14½	FP	Ow	Str	M	DR	DR	dp.Lo	GO	Spi	Own SCH	Ros	O2IMV	502	c	FD	88½	158⅞	34½	42½x3	55x4	½
22	453	5.1	309	48.6	101–2400	L	G	C	7–3	14½	FP	Ow	Str	M	DR	DR	dp.Lo	GO	Spi	Tim 26450	Ros	BO4IMV	670	c	FD	119½	210	34½	42½x3	54⅜x4	½
23	453	5.1	309	48.6	101–2400	L	G	C	7–3	14½	FP	Ow	Str	M	DR	DR	dp.Lo	GO	Spi	Tim 26450	Ros	O4IA	543	c	FD	162⅞	102¾	34½	41⅝x3	54⅜x4	½
24	453	5.1	309	48.6	101–2400	L	G	C	7–3	14½	FP	Ow	Str	M	DR	DR	dp.Lo	GO	Spi	Tim 26450	Ros	O4IA	543	c	FD	244⅜	127½	34¼	42½x3	54⅜x4	½
25	358	5.2	240	38.4	84–2500	L	G	C	7–3	12⅝	FP	Ow	Str	M	DR	DR	dp.Lo	GO	Spi	Tim 35000	Ros	LO4IDV	450	c	2I	134	72¼	34	41¼x3	53x3	½
26	358	5.2	240	38.4	84–2500	L	G	C	7–3	12⅝	FP	Ow	Str	M	DR	DR	dp.Lo	GO	Spi	Tim 35000	Ros	LO4IDV	519	c	2I	176	102¼	34	41⅛x3	53x3	½
27	404	5.1	271	43.4	94–2500	L	G	C	7–3	14½	FP	Ow	Str	M	DR	DR	dp.Lo	GO	Spi	Tim 26450	Ros	LO4IDV	543	c	FD	116	71¼	34	41⅝x3	53x3	½
28	404	5.1	271	43.4	94–2500	L	G	C	7–3	14½	FP	Ow	Str	M	DR	DR	dp.Lo	GO	Spi	Tim 26450	Ros	LO4IDV	543	c	FD	176	103¼	34	41⅜x3	53x3	½
29	404	5.1	271	43.4	94–2500	L	G	C	7–3	14½	FP	Ow	Str	M	DR	DR	dp.Lo	GO	Spi	Tim 26450	Ros	LO4IDV	543	c	FD	134	84¼	34	41⅝x3	53½x4	½
30	453	5.1	309	48.6	101–2400	L	G	C	7–3	14½	FP	Ow	Str	M	DR	DR	dp.Lo	GO	Spi	Tim 27450	Ros	O4IA	599	c	FD	158	103¼	34	41⅜x3	53½x4	½
31	453	5.1	309	48.6	101–2400	L	G	C	7–3	14½	FP	Ow	Str	M	DR	DR	dp.Lo	GO	Spi	Tim 27450	Ros	O4IA	599	c	FD	242	120¼	34	41⅜x3	53½x4	½
32	245	5.1	165	29.4	73–3000	L	G	A	7–2⅜	10¼	FP	No	Zen	M	DR	DR	P.Lo	Ch	Blo	Tim 30000	Ros	L4IH	269	a	TX	Opt	Opt	32	42½x2¼	58x2½	N
33	245	5.1	165	29.4	73–3000	L	G	A	7–2⅜	10¼	FP	Wa	Zen	M	DR	DR	P.Lo	Ch	Blo	Tim 31000	Ros	L4IH	330	a	TX	Opt	Opt	32	42½x2¼	58x2½	N
34	282	5.1	188	33.8	85–3200	L	G	A	7–2⅜	10¼	FP	Wa	Zen	M	DR	DR	P.BL	Ch	Blo	Tim 31000	Ros	L4IH	330	a	TX	Opt	Opt	32	42½x2¼	58x2½	N
35	282	5.1	188	33.8	85–3200	L	G	A	7–2⅜	10¼	FP	Wa	Zen	M	DR	DR	P.BL	Ch	Blo	Tim 33000H	Ros	L4IH	330	a	TX	Opt	Opt	32	42½x2½	58x3	N
36	358	5.1	254	38.4	110–2800	F	G	A	7–2⅜	12½	FP	Wa	Ma	M	DR	DR	P.BB	Ch	Blo	Tim 35000H	Ros	L4IH	376	a	TD	Opt	Opt	32	42½x2½	58x3	N
37	462	5.0	324	45.9	125–2600	F	G	A	7–3	13⅞	FP	Wa	Str	M	DR	DR	P.BB	Ch	Blo	Tim 35000H	Ros	L4IHV	462	E	FD	Opt	Opt	32	42½x2½	58x3	N
38	215	5.0	142	27.3	72–3000	L	G	A	4–2⅜	6⅜	CC	No	Zen	M	DR	DR	P.BL	Lo	MM	C1F 212	Ros	L4IH	312	p	GTX	89	54	36	47x2¼	50x2½	N
39	215	5.0	142	27.3	72–3000	L	G	A	4–2⅜	6⅜	CC	No	Zen	M	DR	DR	P.BL	Lo	MM	C1F 212	Ros	L4IH	312	p	GTX	132	84	36	47x2¼	50x2½	N
40	215	5.0	142	27.3	72–3000	L	G	A	4–2⅜	6⅜	CC	No	Zen	M	DR	DR	P.BL	Lo	MM	C1F 212	Ros	L4IH	312	p	GTX	132	84	36	47x2¼	50x2½	N
41	215	5.0	142	27.3	72–3000	L	G	A	4–2⅜	6⅜	CC	No	Zen	M	DR	DR	P.BL	Lo	MM	C1F 304	Ros	L4IH	414	p	GTX	135	87	36	47x2¼	50x3	N
42	282	5.0	194	34.0	84–2800	L	G	N	7–2½	10⅜	CC	No	Zen	M	DR	DR	P.BL	Pe	MM	C1F 304	Ros	L4IH	414	p	GTX	114	66	36	47x2¼	50x3	N
43	282	5.0	194	34.0	84–2800	L	G	N	7–2½	10⅜	CC	No	Zen	M	DR	DR	P.BL	Pe	MM	C1F 304	Ros	L4IH	414	p	GTX	126	78	36	47x2¼	50x3	N
44	282	5.0	194	34.0	84–2800	L	G	N	7–2½	10⅜	CC	No	Zen	M	DR	DR	P.BL	Pe	MM	C1F 318	Ros	L4IH	490	p	GCX	144	96	36	47x2½	60x3	N
45	361	4.6	240	40.0	98–2500	L	G	N	7–2⅝	12⅜	CC	Pe	Zen	M	DR	DR	P.BL	Pe	MM	C1F 318	Ros	L4IH	490	p	GCX	147	99	36	47x2½	60x3	N
46	361	4.6	240	40.0	98–2500	L	G	N	7–2⅝	12⅜	CC	Pe	Zen	M	DR	DR	P.BL	Pe	MM	C1F 318	Ros	L4IH	490	p	GCX	137	89	36	47x2½	60x3	N
47	361	4.6	240	40.0	98–2500	L	G	N	7–2⅝	12⅜	CC	Pe	Zen	M	DR	DR	P.BL	Pe	MM	Tim 35120	Ros	L4IH	616	G	CX	104	69	36	47x2½	60x3	N
48	383	4.6	252	44.0	105–2500	L	G	N	7–2⅝	12⅜	CC	Pe	Zen	M	DR	DR	P.BL	Pe	MM	Tim 35120	Ros	L4IH	616	G	CX	104	69	36	47x2½	60x4	N
49	214	4.9	142	27.3	72–3200	L	C	A	4–2⅜	6⅛	CC	No	Zen	M	AL	AL	P.BB	GO	Spi	Col 4007	Ros	L4IH	248	G	TX	111	65	34	37x2¼	52x2½	½
50	248	4.9	170	27.3	78–3100	L	C	C	7–2⅜	10⅛	CC	No	Zen	M	AL	AL	F.BB	GO	Spi	Col 5500A8	Ros	L4IH	365	G	CD	111	65	34	37x2¼	52x2½	½
51	248	4.9	170	27.3	78–3100	L	C	C	7–2⅜	10⅛	CC	No	Zen	M	AL	AL	P.Li	GO	Spi	Col 5500A9	Ros	L4IH	365	G	CD	141	84	34	37x2¼	52x2½	½
52	311	4.2	196	38.4	73–2400	H	C	N	7–2¾	13⅛	CC	KP	Zen	M	AL	AL	D.BL	GO	Spi	Col 5500A7	Ros	L4IHV	365	G	CD	108	69	34	40x2½	54x2½	½
53	311	4.2	196	38.4	73–2400	H	C	N	7–2¾	13⅛	CC	KP	Zen	M	AL	AL	D.BL	GO	Spi	Col 5500A7	Ros	L4IHV	365	G	CD	108	69	34	40x2½	54x3	½
54	360	4.5	240	40.8	90–2500	L	G	N	7–2⅝	13	CC	KP	Zen	M	AL	AL	P.Li	GO	Spi	Col 5500A7	Ros	L4IHV	365	G	CD	168	101	34	40x2½	54x3	½
55	311	4.2	196	38.4	73–2400	L	C	N	7–2¾	13⅛	CC	KP	Zen	M	AL	AL	D.BL	GO	Spi	Shu 15582B13	Ros	L4IHV	407	G	CD	142	83	34	40x2½	54x3	½
56	360	4.5	240	40.8	90–2500	L	G	N	7–2⅝	13	CC	KP	Zen	M	AL	AL	P.Li	GO	Spi	Shu 15582B13	Ros	L4IHV	407	G	CD	168	101	34	40x2½	54x3	½
57	381	4.4	276	40.8	104–2400	H	C	N	7–2¾	13⅛	CC	KP	Zen	M	AL	AL	D.BL	GO	Spi	Shu 15582B13	Ros	L4IHV	407	G	CD	142	83	34	40x2½	54x3	½
58	427	4.2	308	45.9	115–2400	H	C	N	7–2¾	13⅛	CC	KP	Zen	M	AL	AL	D.BL	GO	Spi	Shu 15682B11	Ros	L4IHV	407	G	CD	142	83	34	40x2½	54x3	½
59	381	4.4	276	40.8	104–2400	H	C	N	7–2¾	13⅛	CC	KP	Zen	M	AL	AL	D.BL	GO	Spi	Shu 15682B11	Ros	L4IHV	500	G	CD	142	83	34½	40x2½	54x3	½
60	427	4.2	308	45.9	115–2400	H	C	N	7–2¾	13⅛	CC	KP	Zen	M	AL	AL	D.BL	GO	Spi	Shu 15692B12	Ros	L4IHV	550	G	CD	142	83	34½	40x2½	54x3	½
61	501	4.3	350	48.6	125–2200	H	C	A	7–2¾	13⅞	CC	KP	Zen	M	AL	AL	D.Fu	GO	Spi	Shu 15692B12	Ros	L4IHV	550	G	CD	210	125	34¼	40x2½	54x3	½
62	501	4.3	350	48.6	125–2200	H	C	A	7–2¾	13⅞	CC	KP	Zen	M	AL	AL	D.Fu	GO	Spi	Shu 15692B12	Ros	Lw4IDV	600	G	CD	210	125	34¼	40x2½	54x3	½
63	753	5.1	505	76.4	240–2800	H	C	A	4–3½	9¼	FP	AtaF	Zen	V	DR	DR	dp.BL	GO	Spi	Tim 27452 A1	Ros	Ws4IA	558	G	CD	192	112	32	40x3	54x3½	½
64	207	5.2	146	26.3	56–2750	H	G	C	3–2	5	PG	No	Car	M	DR	DR	P.Ow	Hr	Own	Own	Own	O4IM	129	p	4I	. . .	27⅛	. . .	36x1¾	54x1¾	N
65	207	5.2	146	26.3	56–2750	H	G	C	3–2	5	PG	No	Car	M	DR	DR	P.Ow	Hr	Own	Own	Own	O4IM	184	p	4I	85⅛	50¼	37	36x1¾	54x1¾	N
66	207	5.2	146	26.3	56–2750	H	G	C	3–2	5	PG	No	Car	M	DR	DR	P.Ow	Hr	Own	Own	Own	O4IM	184	p	4I	111⅛	76¾	37	36x1¾	45x2½	N
67	200	4.7	125	24.0	49–2800	L	C	A	3–2¼	5⅜	FP	No	Zen	M	DR	DR	P.BB	Pe	Spi	Own 8F	Ros	L4IH	268	p	TX	96	53	34	38x2¼	50x2½	N
68	214	4.9	142	27.3	72–3200	L	C	A	4–2⅜	6⅜	FP	No	Zen	M	DR	DR	P.BB	Pe	Spi	Own 8F	Ros	L4IH	268	p	TX	96	55	34	38x2¼	50x2½	N
69	214	4.9	142	27.3	72–3200	L	C	A	4–2⅜	6⅜	FP	No	Zen	M	DR	DR	P.BL	Pe	Spi	Tim 30020H	Ros	L4IH	287	p	TX	Opt	Opt	34	38x2¼	50x2½	½
70	248	5.0	160	27.3	78–3200	L	C	C	7–2⅜	10⅛	FP	No	Zen	M	DR	DR	P.BL	Pe	Spi	Tim 31000H	Ros	L4IH	327	a	TX	Opt	Opt	34	38x2¼	54x3	½
71	318	4.6	200	36.0	80–2700	L	C	C	7–2⅝	11⅛	FP	No	Zen	M	DR	DR	P.BL	Pe	Spi	Tim 33000H	Ros	L4IH	345	a	TX	134	82	34	40x2½	54x3	½
72	318	4.6	200	36.0	80–2700	L	C	C	7–2⅝	11⅛	FP	No	Zen	M	DR	DR	P.BL	Pe	Spi	Tim 33000H	Ros	L4IH	345	a	TX	134	82	34	40x2½	54x3	½
73	318	4.5	200	36.0	80–2700	L	C	C	7–2⅝	11⅛	FP	No	Zen	M	DR	DR	P.BL	Pe	Spi	Tim 33000H	Ros	L4IH	660	a	TD	144	88	34	40x2½	54x3	½
74	318	4.5	200	36.0	80–2700	L	C	C	7–2⅝	11⅛	FP	No	Zen	M	DR	DR	P.BL	Pe	Spi	Tim 33000H	Ros	L4IH	660	a	TD	144	97	34	40x2½	54x3	½
75	360	4.4	240	40.8	90–2500	L	C	C	7–2⅝	11⅛	FP	No	Zen	M	DR	DR	D.BL	Pe	Spi	Tim 35000H	Ros	L4IHV	768	a	TD	132	92	34	40x2½	54x3	½
76	383	4.5	236	43.3	95–2500	L	C	C	7–2⅝	11⅛	FP	No	Zen	M	DR	DR	D.BL	Pe	Spi	Tim 25450H	Ros	T4IHV	876	a	TD	162	109	34	46x3	60x3½	½
77	428	4.6	308	45.9	118–2600	H	C	C	7–2⅝	11⅛	FP	No	Zen	M	DR	DR	D.BL	Pe	Spi	Tim27450TW	Ros	T4IA	921	a	TD	162	109	34	46x3	56x4	½
78	248	5.0	160	27.3	78–3200	L	C	C	7–2⅜	10⅛	FP	No	Zen	M	DR	DR	P.BL	Pe	Spi	Tim 30020H	Ros	L4IHV	380	p	TX	(3)	(3)	34	38x2¼	50x2½	½
79	318	4.6	200	36.0	80–2700	L	C	C	7–2⅜	11⅛	FP	No	Zen	M	DR	DR	P.BL	Pe	Spi	Tim 31000H	Ros	L4IHV	452	a	TX	(3)	(3)	34	38x2¼	54x3	½
80	360	4.4	240	40.8	90–2500	L	C	C	7–2⅜	11⅛	FP	No	Zen	M	DR	DR	P.BL	Pe	Spi	Tim 33000H	Ros	L4IHV	578	a	TD	(3)	(3)	34	40x2½	54x3	½
81	428	4.6	308	45.9	118–2600	H	C	C	7–2⅜	13	FP	No	Zen	M	DR	DR	P.BL	Pe	Spi	Tim 33000H	Ros	L4IHV	660	a	TD	(3)	(3)	34	40x2½	54x3	½
82	500	4.5	340	48.6	138–2500	H	C	A	7–2¾	13⅛	FP	No	Zen	M	DR	DR	D.BL	Pe	Spi	Tim 35000H	Ros	L4IHV	768	a	TD	(3)	(3)	34	40x2½	54x3	½
83	611	4.5	384	54.1	127–2300	L	G	A	7–3	13⅛	FP	No	Zen	M	DR	DR	dp.BL	Pe	Spi	Tim 26450W	Ros	Ws4IA	921	a	TD	(3)	(3)	34	46x3	60x3½	½
84	228	4.4	142	27.3	59–2800	L	G	C	7–2½	10⅛	PC	No	Zen	M	DR	DR	P.BB	GO	Spi	Tim 30000H	Ros	L4IH	269	a	XF	106½	58½	34	40x2¼	54x2½	½
85	263	4.4	164	31.5	68–2800	L	G	C	7–2½	10⅛	PC	No	Zen	M	DR	DR	P.BB	Pe	Spi	Tim 30000H	Ros	L4IH	269	a	XF	104½	56½	34	40x2¼	54x2½	½
86	282	4.4	176	33.7	73–2800	L	G	C	7–2⅝	10⅛	PC	No	Zen	M	DR	DR	P.BB	Pe	Spi	Tim 31000H	Ros	L4IH	282	a	XF	130½	78½	33½	40x2¼	54x3	½
87	339	4.7	234	38.4	94–2800	L	G	C	7–2⅝	13¼	PC	Ha	Zen	M	DR	DR	P.BL	Pe	Spi	Tim 33000H	Ros	L4IH	353	a	DF	121	70	33½	40x2¼	54x3	½
88	383	4.7	265	43.3	106–2800	L	G	C	7–2⅝	13¼	PC	Ha	Zen	M	DR	DR	P.BL	Pe	Spi	Tim 33000H	Ros	L4IH	395	a	DF	131	79½	34	42x2½	56x3	½
89	383	4.7	265	43.3	106–2800	L	G	C	7–2⅝	13¼	PC	Ha	Zen	M	DR	DR	P.BL	Pe	Spi	Tim 35000H	Ros	L4IH	484	a	DF	131	79½	34	42x2½	56x3	½
90	529	4.4	350	51.3	114–2200	L	G	C	7–3	12½	PC	No	Zen	M	DR	DR	P.BL	Pe	Spi	Tim 26450H	Ros	L4IH	692	a	DF	132	78	33	46x3	60x4	½
91	228	5.0	148	27.3	63–2800	L	G	C	7–2½	10⅛	PC	No	Zen	M	AL	AL	P.BB	GO	Spi	Cla F212A	Ros	L4IH	224	a	TX	93	51½	34	42x2	50x2½	½
92	228	5.0	148	27.3	63–2800	L	G	C	7–2½	10⅛	PC	No	Zen	M	AL	AL	P.BB	GO	Spi	Cla F212A	Ros	L4IH	252	a	TX	93	51½	34	42x2	50x2½	½
93	228	5.0	148	27.3	63–2800	L	G	C	7–2½	10⅛	PC	No	Zen	M	AL	AL	P.BB	Mo	Spi	Cla F212A	Ros	L4IH	224	a	TX	93	51½	34	42x2	50x2½	½
94	228	5.0	148	27.3	63–2800	L	G	C	7–2½	10⅛	PC	No	Zen	M	AL	AL	P.BB	Mo	Spi	Cla F212A	Ros	L4IH	252	a	TX	93	51½	34	42x2	50x2½	½
95	228	5.0	148	27.3	63–2800	L	G	C	7–2½	10⅛	PC	No	Zen	M	AL	AL	P.BB	Mo	Spi	Cla F212A	Ros	L4IH	252	a	TX	93	51½	34	42x2	50x2½	½
96	228	5.0	148	27.3	63–2800	L	G	C	7–2½	10⅛	PC	No	Zen	M	AL	AL	P.BB	Mo	Spi	Cla F212A	Ros	L4IH	252	a	TX	96	54	34	42x2½	53x2½	½
97	263	5.4	164	31.5	68–2800	L	G	A	7–2½	10⅛	PC	No	Zen	M	AL	AL	P.BB	Mo	Spi	Cla F308	Ros	L4IH	350	a	TX	126	72	34	42x2½	53x2½	½
98	228	5.0	148	27.3	63–2800	L	G	C	7–2½	10⅛	PC	No	Zen	M	AL	AL	P.BB	Mo	Spi	Cla F212A	Ros	L4IH	335	a	TX	126	72	34	42x2½	53x2½	½
99	282	5.35	176	33.7	73–2800	L	G	A	7–2½	10⅛	PC	Ha	Zen	M	AL	AL	P.BB	Mo	Spi	Cla F308	Ros	L4IH	350	a	TD	126	72	34	42x2½	53x2½	½
100	263	5.4	164	31.5	68–2800	L	G	A	7–2½	10⅛	PC	No	Zen	M	AL	AL	P.BB	Mo	Spi	Cla F308	Ros	L4IH	350	a	TD	126	72	34	42x2½	53x2½	½
101	263	5.4	164	31.5	68–2800	L	G	A	7–2½	10⅛	PC	No	Zen	M	AL	AL	P.BB	Mo	Spi	Cla F308	Ros	L4IH	350	a	TD	126	72	34	42x2½	53x2½	½
102	339	5.0	232	38.4	103–2800	L	G	A	7–2⅝	13¼	PC	Ha	Zen	M	AL	AL	P.BB	GO	Spi	Cla F308	Ros	L4IHV	350	a	TD	117	74¾	34	45¼x2½	56x3	½
103	282	5.3	176	33.7	73–2800	L	G	A	7–2½	10⅛	PC	Ha	Zen	M	AL	AL	P.BB	Mo	Spi	Cla F308	Ros	L4IH	350	a	TD	126	72	34	42x2½	53x3	½
104	339	5.0	232	38.4	103–2800	L	G	A	7–2⅝	13¼	PC	Ha	Zen	M	AL	AL	P.BB	GO	Spi	Shu 5582B	Ros	L4IHV	408	a	TD	114	71⅝	34	45¼x2½	56x3	½
105	339	5.0	232	38.4	103–2800	L	G	A	7–2⅝	13¼	PC	Ha	Zen	M	AL	AL	P.BB	GO	Spi	Cla F308	Ros	L4IHV	408	a	TD	117	74¾	34	45¼x2½	56x3	½
106	428	4.4	280	45.9	93–2200	L	G	C	7–3	14	PC	Ha	Zen	M	AL	AL	P.BB	GO	Spi	Shu 5582B	Ros	L4IHV	499	a	TD	120	79½	34	45¼x2½	56x3	½
107	384	5.0	258	43.3	107–2800	L	G	A	7–2⅝	13¼	PC	Ha	Zen	M	AL	AL	P.BB	GO	Spi	Shu 5582B	Ros	L4IHV	499	a	TD	120	74½	34	45¼x2½	56x3	½
108	501	4.4	330	48.6	110–2200	L	G	C	7–3	12½	PC	Ha	Zen	M	AL	AL	D.Co	GO	Spi	Shu 15682B	Ros	L4IHV	499	a	TD	138	89¼	34	46x3	56x3	½
109	529	4.4	350	51.3	114–2200	L	G	C	7–3	12½	PC	Ha	Zen	M	AL	AL	D.Co	GO	Spi	Shu 678–28	Ros	Ws 4IA	552	a	TD	138	89¼	34	46x3	56x3½	½
110	529	4.4	350	51.3	114–2200	L	G	C	7–3	12½	PC	Ha	Zen	M	AL	AL	D.Co	GO	Spi	Shu 678–28	Ros	L4IHV	. . .	a	TD	138	89¼	34	46x3	56x3	½

Line Number	MAKE AND MODEL	GENERAL (See Keynote) Tonnage Rating	Chassis Price	Standard Wheelbase	Max. W. B. Furnished	Gross Vehicle Weight	Chassis Wt. (Stripped)	TIRE SIZE Front	TIRE SIZE Rear	MAJOR UNITS. ENGINE Make and Model	ENGINE No. of Cylinders Bore and Stroke	TRANSMISSION Make and Model	TRANSMISSION Location and Forward Speeds	TRANSMISSION Aux. Location and Speeds	REAR AXLE Make and Model	REAR AXLE Gear and Type	REAR AXLE Drive and Torque	REAR AXLE GEAR RATIOS In High	REAR AXLE GEAR RATIOS In Low	FRAME Side Rail Dimensions	FRAME Type
1	Dodge Bros. KD32	1½–3	***	136	161	10500	2858	B6.00/20	P32x6	Own	6–3¼ x4 3/8	Own	U 4	Op	Own	SF	H	5.12	32.7	7x2 1/2 x 1/2	C
2	(Concluded) KS32	1½–3	***	136	161	10500	2866	B6.00/20	P32x6	Own	6–3⅜ x4½	Own	U 4	Op	Own	SF	H	5.12	32.7	7x2 1/2 x 1/2	C
3	..... H33	1½–3	795	136	165	11000	3350	B7.00/20	DB7.00/20	Own	6–3¼ x4 3/8	Own	U 4	No	Own	SF	H	6.37	40.8	8 1/2 x2 3/4 x 1/2	C
4	..... K35	1½–4	***	140	169	12500	3580	B7.00/20	DB7.00/20	Own	6–3⅜ x4½	Own	U 5	Op	Own	SF	H	5.66	40.0	8 1/2 x2 1/2 x 1/2	C
5	..... KZ35	1½–4	***	140	169	12500	3780	B7.00/20	DB7.00/20	Own	6–3⅜ x5	Own	U 5	Op	Own	SF	H	5.66	40.0	8 1/2 x2 1/2 x 1/2	C
6	..... H43	2–3	795	136	165	11000	3350	B7.00/20	DB7.00/20	Own	6–3¼ x4 3/8	Own	U 5	No	Own	SF	H	6.37	46.0	8 1/2 x2 3/4 x 1/2	C
7	..... K45	2–4	***	140	169	12500	3580	B7.00/20	DB7.00/20	Own	6–3¾ x4½	Own	U 5	Op	Own	SF	H	5.66	40.0	8 1/2 x2 1/2 x 1/2	C
8	..... KZ45	2–4	***	140	169	12500	3780	B7.00/20	DB7.00/20	Own	6–3⅜ x5	Own	U 5	Op	Own	SF	H	5.66	40.0	8 1/2 x2 1/2 x 1/2	C
9	..... F40	2–4	1995	150	190	16000	5173	B6.50/20	DB6.50/20	Own	6–3⅜ x5	Own	U 4	Op	Own	SF	H	6.37	43.7	9 1/2 x3 1/4 x 1/2	C
10	..... K40	2–5	***	150	190	19000	5344	P32x6	DP32x6	Own	6–3⅜ x5	Own	U 4	Op	Own	SF	H	6.37	43.7	9 1/2 x3 1/4 x 1/2	C
11	.....(5) F-61	3–5½	2575	170	195	20000	5789	P32x6	DP32x6	Own	6–3⅜ x5	Own	U 4	Op	Own	2F	H	7.12	48.8	10x3 1/4 x 1/2	C
12	.....(5) K-61	3–6	***	146	195	22000	5789	P32x6	DP32x6	Own	6–3⅜ x5	Own	U 4	Op	Own	2F	H	7.12	48.8	10x3 1/4 x 1/2	C
13	..... G-80	4–8	5250	146	220	25000	7640	B9.75/20	DB9.75/20	Own	8–3½ x5	Own	U 5	Op	Own	SF	H	7.71	62.7	9 1/2 x3 1/2 x 3/4	C
14	Duplex..... S	2½–3	3600	160	Op	15000	5600	B8.25/20	DB8.25/20	Bud K325	6–3¼ x4 3/4	BL 324	U 5	No	Tim 65200	WF	R	8.75	36.2	6x3 1/2 x 1/4	C
15	..... FAC	3½	4250	160	Op	16500	7200	S34x5	S36x8	Bud EBU-I	4–4½ x5½	BL 51	U 5	No	Tim 65706	WF	R	8.50	45.5	7x3 1/2 x 1/4	C
16	..... SAC	3½–4	4750	172	Op	18000	7400	B9.75/20	DB9.75/20	Bud K428	6–4⅜ x4¾	BL 55	A 7	No	Tim 75720	WF	R	8.50	81.0	7x3 1/2 x 1/4	C
17	..... K	5	5200	172	Op	21000	8000	B10.50/20	DB10.50/20	Bud L525	6–4½ x5½	BL 60	A 7	No	Tim 76725	w 2F	R	Opt	Opt	8x3 1/2 x 1/4	C
18	..... M	5–7	7600	168	Op	28000	10000	P34x7	DS36x7	Bud GL6	6–4½ x6	BL 70	A 7	No	Tim 68700	WF	R	Opt	Opt	9 1/2 x3 1/2 x 1/2	C
19	Esco..... 234	2–2½	2860	165	205	15000	5900	B7.50/20	DB7.50/20	Con E603	6–4¼ x4½	Cl 105R	U 5	No	Cla B642	BF	H	5.75	40.7	6x3x1/4	C
20	Fageol..... 102	1½–2½	1350	148	172	11200	4000	B6.00/20	DB6.00/20	Wau ZK	6–3¾ x4½	WG T9	U 4	No	Tim 53200H	BF	H	5.66	36.2	6x3x1/4	C
21	 135	2–3	2050	161	195	13400	5400	B7.50/20	DB7.50/20	Wau 6–90	6–3⅝ x4¾	BL 234	U 4	No	Tim 54200H	BF	H	5.83	37.3	6x3x1/4	C
22	 250	2½–4	2750	178	196	16300	6500	B8.25/20	DB8.25/20	Wau 6–110	6–4x4¾	BL 524	U 4	No	Tim 56200H	BF	H	6.16	40.6	8x3x1/4	T
23	 300	3–5	3400	178	196	20700	7200	B9.00/20	DB9.00/20	Wau 6–110	6–4x4¾	BL 524	U 4	No	Tim 58200H	BF	R	6.83	45.1	8x3x1/4	T
24	 370	5–6	5000	182	200	25300	9700	B9.75/20	DB9.75/20	Wau 6–125	6–4⅜ x5½	BL 714	U 4	A 3	Tim 65725H	WF	R	5.69	139.	7 1/2 x3 1/2 x 1/4	C
25	 470	6–7	5500	182	200	33500	10100	B9.75/20	DB9.75/20	Wau 6–125	6–4⅜ x5½	BL 714	U 4	A 3	Tim 66720	WF	R	5.69	139.	7 1/2 x3 1/2 x 1/4	C
26	Federal..... DM		975	120	120	8000	3050	B6.00/20	P32x6	Con W10	4–3¾ x4¼	WG T9	U 4	No	Cla B374	SF	H	5.67	38.2	6x2 1/2 x 1/4	D
27	 15	1½	770	137	174	10000	3500	B6.00/20	P32x6	Her JXA	6–3⅜ x4¼	WG T9	U 4	No	Cla B374	SF	H	6.38	40.8	8 1/2 x2 1/2 x 1/2	T
28	 20	2	1195	137	187	12000	3900	B6.50/20	DB6.50/20	Her JXB	6–3⅜ x4¼	WG T9	U 4	No	Tim 54200H	SF	H	6.80	43.5	8 1/2 x2 1/2 x 1/2	T
29	 25	2½	1495	137	201	14000	4500	B7.00/20	DB7.00/20	Her JXC	6–3¾ x4¼	Cla R109	U 5	No	Cla B640	SF	H	6.38	45.2	8 1/2 x2 1/2 x 1/2	T
30	..... T3W	2½	1595	148	185	14000	5110	P32x6	P36x8	Wau V	4–4x5	Own 7754	A 4	No	Tim 64603H	W½	R	7.25	36.3	6x3 1/2 x 1/4	C
31	..... T3WFA	2½–3	1795	148	185	16000	5400	P32x6	DP32x6	Wau V	4–4x5	Own 7754	A 4	No	Tim 65001H	WF	R	8.75	43.8	6x3 1/2 x 1/4	C
32	 30	2½–3	2095	175	237	16000	6050	B8.25/20	DB8.25/20	Wau 6MS	6–3¾ x4¾	Cla R108	U 5	No	Cla B642	SF	H	6.43	45.5	10x3 1/2 x 1/4	T
33	 40	3½–4	2490	175	237	19000	6550	B9.00/20	DB9.00/20	Wau 6MK	6–4½ x4¾	Cla R908	U 5	No	Tim 58200H	SF	H	6.83	55.5	10x3 1/2 x 1/4	T
34	..... 40DR	3½–4	2615	175	237	19000	6550	B9.00/20	DB9.00/20	Wau 6MK	6–4½ x4¾	Cla R908	U 5	No	Tim 75200H	2F	H	7.0	56.9	10x3 1/2 x 1/4	T
35	..... T10B	3½–4	2550	165	230	19000	6645	P34x7	DP34x7	Con 18R	6–4x4½	Own 7784	A 4	No	Tim 58200H	SF	R	6.83	44	7 1/2 x3 1/2 x 1/2	C
36	...T10DR-T10W	3½–4	2685	165	230	19000	6645	P34x7	DP34x7	Con 18R	6–4x4½	Own 7784	A 4	No	Tim 65200H	w 2F	R	6.75	44.0	7 1/2 x3 1/2 x 1/2	C
37	..... A600T	3–3½	2045	157	206	17000	6100	B8.25/20	DB8.25/20	Con E601	6–3¾ x4½	Own 7784	A 4	No	Tim 58000H	SF	H	7.8	50.8	6x3 1/2 x 1/4	P
38	..A600TDR-A600TW	3–3½	2180	157	206	17000	6100	B8.25/20	DB8.25/20	Con E601	6–3⅝ x4½	Own 7784	A 4	No	Tim 65001H	w/2F	H	7.5	48.9	6x3 1/2 x 1/4	P
39	.....U6-U6DR	4½–5	3860	165	230	22000	7420	P36x8	DP36x8	Con 20R	6–4½ x4¾	Cla B 710	A 5	No	Tim 65706H	w/2F	R	7.75	50.4	7 1/2 x3 1/2 x 1/2	C
40	..... C7-C7W	6	4710	195	249	26000	9550	B9.75/20	DB9.75/20	Con 21R	6–4⅝ x4¾	Cla B 710	A 5	No	Tim 76736H	w/2F	R	7.89	51.3	7 3/4 x3 1/2 x 1/2	P
41	..... C8-C8W	6	5120	195	249	26000	9650	B9.75/20	DB9.75/20	Con 21R	6–4⅝ x4¾	Cla B 710	A 5	No	Tim 76736W	w/2F	R	7.89	51.3	7 3/4 x3 1/2 x 1/2	P
42	..... X8DR-X8	7½	4335	162	186	30000	9750	S36x6	S40x14	Con B7	4–5x6	Cla B 710	A 5	No	Tim 68700DP	w/2F	R	11 7	76.0	9 1/4 x3 1/2 x 1/2	C
43	....X8RDR-X8R	7½	4735	162	186	30000	10475	P40x8	DP40x8	Con 21R	6–4¾ x4¾	Cla B 710	A 5	No	Tim 68702DP	w/2F	R	11.7	76.0	9 1/4 x3 1/2 x 1/2	C
44	Ford Comm.....	3950Lb.	335	112	112	.....	1650	B5.50/17	B5.50/17	Own	4–3 7/8 x4 1/4	Own	U 3	No	Own	S¾	U	4.11	11.5	6x1 1/4 x .105	C
45	.....Truck (14)	1½	470	131	131	.....	2770	B6.00/20	P32x6	Own	4–3 7/8 x4 1/4	Own	U 4	No	Own	S¾	U	6.6	42.2	7x2 3/4 x 1/2	C
46	.....Truck (14)	1½	490	157	157	.....	2880	B6.00/20	P32x6	Own	4–3 7/8 x4 1/4	Own	U 4	No	Own	S¾	U	6.6	42.2	7x2 3/4 x 1/2	C
47	.....Truck (14)	1½	500	131	131	.....	2858	B6.00/20	P32x6	Own	8–3 1/8 x3 3/4	Own	U 4	No	Own	S¾	U	6.60	42.2	7x2 3/4 x 1/2	C
48	.....Truck (14)	1½	520	157	157	.....	2968	B6.00/20	P32x6	Own	8–3 1/8 x3 3/4	Own	U 4	No	Own	S¾	U	6.60	42.2	7x2 3/4 x 1/2	C
49	.....Comm.	3950Lb.	360	112	112	.....	1730	B5.50/17	B5.50/17	Own	8–3 1/8 x3 3/4	Own	U 3	No	Own	S¾	U	4.11	11.5	6x1 1/4 x .105	C
50	General Mot. (6) T18	1½–2	645	131	157	8500	3130	P30x5	P32x6	Own 221	6–3 1/8 x4 3/8	Own	U 4	No	Own	S¾	H	5.43	35.7	7 1/4 x2 3/8 x 1/4	T
51	.....T-18	1½–2	***	144	164	9500	3190	P30x5	P32x6	Own 221	6–3 1/8 x4 3/8	Own	U 4	No	Own	SF	H	5.67	37.3	7 1/4 x2 3/8 x 1/4	T
52	.....T-23	2–3	795	131	166	10500	3420	B6.50/20	DB6.50/20	Own 221	6–3 1/8 x4 3/8	Own	U 4	Op	Own	SF	H	5.67	37.3	7 1/4 x2 3/8 x 1/4	T
53	.....T-23	2–3	***	140	164	11000	3480	B6.50/20	DB6.50/20	Own 221	6–3 1/8 x4 3/8	Own	U 4	No	Own	SF	H	5.67	37.3	7 1/4 x2 3/8 x 1/4	T
54	.....T-33L	2–3	1085	142	184	12500	4320	B6.50/20	DB6.50/20	Own 221	6–3 1/8 x4 3/8	Own	U 4	Op	Own	SF	H	5.63	37.0	8x3x1/4	T
55	.....T-33L	2–3	***	142	184	12500	4320	B6.50/20	DB6.50/20	Own 221	6–3 1/8 x4 3/8	Own	U 4	No	Own	SF	H	5.63	37.0	8x3x1/4	T
56	.....T33	3–3½	1225	142	184	13000	4415	P32x6	DP32x6	Own 257	6–3 1/8 x4 3/8	Own	U 4	Op	Own	SF	H	5.63	35.5	8x3x1/4	T
57	.....T-33	3–3½	***	142	184	14000	4495	P32x6	DP32x6	Own 257	6–3 1/8 x4 3/8	Own	U 4	No	Own	SF	H	5.63	35.5	8x3x1/4	T
58	.....T43	3½–4½	1525	142	184	16000	4935	P32x6	DP32x6	Own 257	6–3 1/8 x4 3/8	Own	U 4	Op	Own	SF	H	6.57	41.4	8x3x1/4	T
59	.....T-43	3½–4½	***	142	184	16000	4955	P32x6	DP32x6	Own 257	6–3 1/8 x4 3/8	Own	U 4	No	Own	SF	H	6.57	41.4	8x3x1/4	T
60	.....(T) T43T	7–9	1935	145	169	29200	5235	P32x6	DP32x6	Own 331	6–3¾ x5	Own	U 4	No	Own	SF	H	6.57	40.6	8x3x1/4	T
61	.....(T) T-43T	7–9	***	145	169	29200	5255	P32x6	DP32x6	Own 331	6–3¾ x5	Own	U 4	No	Own	SF	H	6.57	40.6	8x3x1/4	T
62	.....T51	4–5½	2480	155	200	19000	6090	P34x7	DP34x7	Own 331	6–3¾ x5	Own	U 4	No	Own	SF	H	6.57	40.6	9x3 1/2 x 1/2	TL
63	.....T-51	4–5½	***	155	200	19000	6110	P34x7	DP34x7	Own 331	6–3¾ x5	Own	U 4	No	Own	SF	H	6.57	40.6	9x3 1/2 x 1/2	TL
64	.....T-51	4–5½	***	145	193	20000	6960	P34x7	DP34x7	Own 331	6–3¾ x5	Own	U 4	No	Own	SF	H	6.57	40.6	9x3 1/2 x 1/2	L
65	.....T51W	5–6½	2700	154	200	22000	6980	P34x7	DP34x7	Own 331	6–3¾ x5	Own	U 4	Op	Own	WF	H	8.50	52.5	9x3 1/2 x 1/2	TL
66	.....T-51W	5–6½	***	154	200	22000	7110	P34x7	DP34x7	Own 331	6–3¾ x5	Own	U 4	Op	Own	WF	H	8.50	52.5	9x3 1/2 x 1/2	TL
67	.....T-51W	5–6½	***	145	193	23000	7820	P34x7	DP34x7	Own 331	6–3¾ x5	Own	U 4	Op	Own	WF	H	8.50	52.5	9x3 1/2 x 1/2	L
68	.....T51H	5–6½	2800	154	200	22000	6910	P34x7	DP34x7	Own 331	6–3¾ x5	Own	U 4	Op	Own	2F	H	8.50	52.5	9x3 1/2 x 1/2	TL
69	.....T-51H	5–6½	***	154	200	22000	7010	P34x7	DP34x7	Own 331	6–3¾ x5	Own	U 4	No	Own	2F	H	8.50	52.5	9x3 1/2 x 1/2	TL
70	.....T-51H	5–6½	***	145	193	23000	7745	P34x7	DP34x7	Own 331	6–3¾ x5	Own	U 4	Op	Own	2F	H	8.50	52.5	9x3 1/2 x 1/2	L
71	.....T61	5–6½	3710	154	200	22000	7380	B9.00/20	DB9.00/20	Own 400	6–4½ x5	Own	U 5	Op	Own	WF	H	8.50	56.4	9x3 1/2 x 1/2	TL
72	.....T-61	5–6½	***	154	200	22000	7510	B9.00/20	DB9.00/20	Own 400	6–4½ x5	Own	U 5	Op	Own	WF	H	8.50	56.4	9x3 1/2 x 1/2	TL
73	.....T-61	5–6½	***	145	193	23000	7645	B9.00/20	DB9.00/20	Own 400	6–4½ x5	Own	U 5	Op	Own	WF	H	8.50	56.4	9x3 1/2 x 1/2	L
74	.....T83	5–7½	4205	155	201	25000	7765	B9.00/20	DB9.00/20	Own 400	6–4½ x5	Own	U 5	Op	Own	WF	H	9.00	59.7	9x3 1/2 x 1/2	TL
75	.....T-83	5–7½	***	155	201	25000	7990	B9.00/20	DB9.00/20	Own 400	6–4½ x5	Own	U 5	Op	Own	WF	H	9.00	59.7	9x3 1/2 x 1/2	TL
76	.....T-83	5–7½	***	145	193	26000	8185	B9.00/20	DB9.00/20	Own 400	6–4½ x5	Own	U 4	Op	Own	2F	H	8.50	56.4	9 1/2 x3 1/2 x 1/2	L
77	.....T-84	5–8	4745	171	204	28000	9170	B9.75/20	DB9.75/20	Own 400	6–4½ x5	Own	U 4	Op	Own	2F	H	8.5	53.9	9 1/2 x4 x 1/2	L
78	.....T-84	5–8	***	145	193	30000	8375	B9.75/20	DB9.75/20	Own 450	6–4¾ x5	Own	U 5	No	Own	2F	H	8.50	56.4	9 1/2 x3 1/2 x 1/2	L
79	.....T-84SX	7½	5175	204	204	25000	9850	B10.50/20	DB10.50/20	Own 400	6–4½ x5	Own	U 4	No	Own	2F	H	10.1	64.2	9 1/2 x4 x 1/2	L
80	.....T85	6–8	5600	171	204	30000	10630	B9.75/20	DB9.75/20	Own 525	6–4½ x5½	Own	U 4	Op	Own	2F	H	8.50	53.3	9 1/2 x4 x 1/2	L
81	.....T85H	8–9½	6195	171	204	34000	11060	B9.75/20	DB9.75/20	Own 525	6–4½ x5½	Own	U 4	Op	Own	2F	H	9.30	58.3	9 1/2 x4 x 1/2	L
82	.....T110	10–12	8110	171	204	40000	12800	B10.50/24	DB10.50/24	Own 616	6–4 7/8 x5½	Own	U 4	A 3	Own	2F	R	9.30	116.	9 1/2 x4 x 1/2	L
83	Gramm..... AX4	1–1½	795	131	157	8000	3350	B6.50/20	B6.50/20	Con W10	4–3¾ x4¼	WG T9	U 4	No	Tim 53200H	BF	H	5.66	36.3	6x2 3/4 x 1/4	L
84	..... AX6	1–1½	895	131	157	8000	3550	B6.50/20	B6.50/20	Con 25A	6–3⅝ x4	WG T9	U 4	No	Tim 53200H	BF	H	5.66	36.3	6x2 3/4 x 1/4	C
85	..... BX4	1½–2	895	131	210	10000	3525	B6.00/20	DB6.00/20	Con W10	4–3¾ x4¾	WG T9	U 4	No	Tim 53200H	BF	H	6.2	39.6	6x2 3/4 x 1/4	L
86	..... BX6	1½–2	995	131	210	10000	3725	B6.00/20	DB6.00/20	Con 25A	6–3⅝ x4	WG T9	U 4	No	Tim 53200H	BF	H	6.2	39.6	6x2 3/4 x 1/4	L
87	..... BXF	1½–2	149.	131	210	10000	4000	B6.00/20	DB6.00/20	Lyc ASD	6–3¾ x4½	BL 314	U 4	No	Tim 53200	BF	H	5.6	37.	6x2 3/4 x 1/4	L
88	..... B	1½	1295	140	196	12000	4150	B6.50/20	DB6.50/20	Lyc 4SL	6–3 1/2 x4 1/2	Co A4J	U 4	No	Tim 54200H	BF	H	5.83	37.1	6x2 1/2 x 1/4	C
89	..... BF	2–3	1695	140	210	12000	4300	B6.50/20	DB6.50/20	Lyc ACD	6–3¾ x4½	BL 314	U 4	No	Tim 54200	BF	H	5.8	37.1	6x2 1/2 x 1/4	C
90	..... CX4	2–3	1095	131	210	12000	3950	B6.50/20	DB6.50/20	C n W20	4–4 1/2 x4 1/4	WG T9	U 4	No	Tim 54200H	BF	H	5.8	37.0	10x2 3/4 x 1/4	B
91	..... CX6	2–3	1295	131	210	12000	4150	B6.50/20	DB6.50/20	Con 16C	6–3⅝ x4⅝	WG T9	U 4	No	Tim 54200H	BF	H	5.8	37.0	10x2 3/4 x 1/4	B
92	 C	2–3	1795	160	224	14000	4820	B7.00/20	DB7.00/20	Lyc AS	6–3⅝ x4½	BL 314	U 4	No	Tim 54200 H	BF	H	5.8	37.1	7x2 1/2 x 1/4	L
93	..... CXH	2–3	1345	131	210	13400	4300	B6.50/20	DB6.50/20	Her JXC	6–3¾ x4¼	BL 234	U 4	No	Tim 54200	BF	H	5.8	37.0	10x2 3/4 x 1/4	C
94	..... CF	2–3½	1895	160	224	14000	4900	B7.50/20	DB7.50/20	Lyc ASD	6–3¾ x4½	BL 314	U 4	No	Tim 54200	BF	H	5.8	37.1	7x2 1/2 x 1/4	C
95	..... CXF	2–3½	2395	160	224	14000	5100	B7.50/20	DB7.50/20	Con 20R	6–4½ x4½	BL 554	U 4	No	Tim 54200	BF	H	5.8	41.6	7x2 1/2 x 1/4	C
96	..... D	2½–4	1995	160	224	17000	5100	B7.50/20	DB7.50/20	Lyc ASD	6–3¾ x4½	BL 314	U 4	No	Tim 56200H	BF	H	6.1	39.0	7x2 1/2 x 1/4	C
97	..... DF	2½–4	2695	160	260	17000	5300	B. .50/20	DB7.50/20	Con 21R	6–4⅜ x4¾	BL 554	U 4	No	Tim 56200	BF	H	6.1	43.5	7x2 1/2 x 1/4	C
98	..... EX	3–4	2295	160	224	16300	5200	B8.25/20	DB8.25/20	Con E601	6–3 1/2 x4 1/2	BL 324	U 4	No	Tim 56200	BF	H	6.1	43.5	7x2 1/2 x 1/4	C
99	..... E330	3–4½	2595	160	224	20000	5950	B8.25/20	DB8.25/20	Lyc TS	6–3½ x5	BL 554	U 4	No	Tim 58200H	BF	H	5.5	35.6	12x2 1/2 x 1/4	P
100	..... ED	3–4½	3995	160	224	20000	6100	B8.25/20	DB8.25/20	Cum Die	4–4 1/2 x6	BL 524	U 4	No	Tim 58200	BF	H	5.5	35.6	12x2 1/2 x 1/4	P
101	..... EY190	3	3595	190	190	16000	6750	B7.50/20	DB7.50/20	Con 20R	6–4½ x4¾	Co Rus4	U 4	No	Tim 58200H	BF	H	5.83	39.1	8¾ x3¼ x 1/4	L
102	..... GY	4	4345	190	210	18000	7700	B8.25/20	DB8.25/20	Con 21R	6–4¾ x4¾	Co Rus	U 4	No	Wis 69317H	2F	H	4.3	27.9	8¾ x3¼ x 1/4	L
103	..... G	4–6	3695	150	225	24000	7950	B9.00/20	DB9.00/20	Con 21R	6–4½ x4¾	BL 554	U 4	No	Wis 1237H	2F	H	6.8	49.0	12x2 1/2 x 1/4	L
104	..... GF	4–6	5500	150	225	24000	9050	B9.75/20	B9.75/20	Her HXC	6–5 1/4 x6	BL 744	U 4	No	Wis 1237H	2F	H	4.29	15.8	12x2 1/2 x 1/4	P
105	..... GW	5–7½	5175	157	240	28000	9500	B9.00/20	DB9.00/20	Con 21R	6–4½ x4¾	BL 554	U 4	No	Wis 1627KW	2F	H	6.3	41.0	7 1/2 x3 1/4	P
106	..... GWD	5–7½	6495	157	240	30000	10000	B10.50/20	D10.50/20	Cum H Die.	6–4 7/8 x6	BL 735	U 5	No	Wis 1737KW	2F	H	5.75	21.2	12x3x1/4	P
107	..... HY	5	6595	210	236	22000	10100	B9.00/20	DD9.00/20	Con 16H	6–4½ x5¾	Fu HU16	U 4	No	Wis12527KW	2F	H	4.0	25.2	8¾ x3¼ x 1/4	L
108	G.-P..... (7) 635	2–3	1445	154	160	15000	3650	B7.00/20	DB7.00/20	Lyc SB	6–3¾ x4½	Fu MKU	U 4	No	Tim 53200H	SF	H	6.3	42.9	9x 1/4 x3	TL
109	 645	2½–3½	2425	154	175	18000	5775	B8.25/20	DB8.25/20	Wa 6-90-255	6–3¾ x4¾	Fu 5A380	U 5	No	Tim 58200H	SF	H	6.5	47. 8	10x3 1/2 x 1/4	TL
110	..... (7) 665	3½–5	4170	162	179	20000	7600	B9.00/20	DB9.00/20	Wa6-110-358	6–4x4¾	Fu 5A380	U 5	No	Wis 70000L	2F	R	8.0	56.0	12x3 1/2 x 1/4	TL
111	..... (7) 675	5–7	5445	162	179	25000	9450	B9.75/20	DB9.75/20	Wa6-125-462	6–4½ x5 1/4	Fu 5A530	U 5	No	Wis 1337H	2F	R	8.6	61.0	14x3 1/2 x 1/4	TL
112	Hendrickson..... 158	2½	2600	Op	Op	15000	6000	B8.25/20	DB8.25/20	Wau 6-90	6–3⅝ x4¾	Fu 5A38	U 5	No	Tim 54200H	SF	H	Opt	Opt	8x3x1/4	
113	 198	3	3100	Op	Op	19000	6500	B9.00/20	DB9.00/20	Wau 6-110	6–4x4¾	Fu 5A38	U 5	No	Tim 58200H	SF	H	Opt	Opt	8x3x1/4	C
114	 248	4	3600	Op	Op	24000	8200	B9.75/20	DB9.75/20	Wau 6-110	6–4x4¾	Fu 5A38	U 5	No	Tim 75733H	w/2	R	Opt	Opt	8x3x1/4	P
115	 328	5	4200	Op	Op	32000	10600	B9.75/20	DB9.75/20	Wau 125	6–4¾ x5 1/4	Fu 5A53	U 5	No	Tim 76733H	w/2	R	Opt	Opt	8x3x1/4	P
116	Hug..... 23	2	1785	146	191	12310	5510	B7.00/20	DB7.00/20	Bud H298	6–3¾ x4½	Fu MLU	U 4	No	Cla B611	SF	H	5.66	36.0	8x3x1/4	T
117	 42	3	2175	146	201	15600	6400	B8.25/20	DB8.25/20	Bud H298	6–3¾ x4½	Fu MLU	U 4	No	Cla B805	SF	H	6.37	40.5	8x3x1/4	T
118	 418	3	5070	158	158	18165	8500	B9.75/20	B12.75/20	Bud K428	6–4⅜ x4¾	Fu MRUAY	U 4	A 3	Wis 1237H	2F	H	8.95	119.	8x3x1/4	T
119	..... 42K	3	2393	146	201	16500	7300	B9.00/20	DB9.00/20	Bud K369	6–4 1/4 x4¾	BL 51-5	U 5	No	Cla B805	SF	H	7.12	42.0	8x3x1/4	T
120	 70	3	3435	122	122	19500	7535	B9.00/20	DB9.00/20	Bud K369	6–4 1/4 x4¾	Fu 5A380	U 5

Line Number	ENGINE DETAILS: Piston Displacement	Compression Ratio	Torque lb. ft.	N.A.C.C. Rated H.P.	Max. Brake H.P. at R.P.M. Given	Valve Arrangement	Camshaft Drive	Piston Material	MAIN BEARINGS: Number and Diameter	MAIN BEARINGS: Length	Oiling System Type	Governor Make	FUEL SYST.: Carburetors Make	FUEL SYST.: Fuel Feed	ELECTRICAL: Ignition System Make	ELECTRICAL: Generator, Starter Make	Clutch Type and Make	Radiator Make	Universals Make	FRONT AXLE: Make and Model	Steering Gear Make	BRAKES: SERVICE: Make, Location Type, Operation	BRAKES: SERVICE: Lining Area	BRAKES: SERVICE: Drum Material	BRAKES: Hand Location, Type	BODY MOUNTING DATA: Cab to Rear of Frame	BODY MOUNTING DATA: Cab to Rear Axle	BODY MOUNTING DATA: Width of Frame	SPRINGS: Front	SPRINGS: Rear	Auxiliary Type
1	217	5.6	150	25.3	70–3000	L	C	S	4–2½	5 11/16	CC	No	Car	M	DR	DR	P.BB	Fe	Own	Own	Own	O4IH	176	a	TX	99 23/32	51 1/2	34	36x1¾	48x2¼	N
2	242	5.4	170	27.3	80–3200	L	C	A	4–2½	6¼	CC	MoHa	Car	M	DR	DR	P.BB	Fe	Own	Own	Own	O4IH	230	a	TX	87 1/8	51 1/8	37 11/32	39x2	48x2½	½
3	217	5.1	148	25.3	77–3200	L	C	S	4–2½	5.34	CC	Ha	Car	M	DR	DR	P.BB	Fe	Own	Own	Own	O4IH	232	a	TX	91 1/16	55 1/32	34	39x2	48x2½	½
4	242	5.4	170	27.3	80–3200	L	C	A	4–2½	6¼	CC	MoHa	Car	M	DR	DR	P.BB	Fe	Own	Own	Own	O4IH	232	a	TX	91 1/16	55 1/32	34	39x2	48x2½	½
5	309	4.7	200	31.5	96–3000	L	G	S	7–2⅝	11¾	CC	Mo	Det	M	DR	DR	P.BB	Lo	Own	Own	Own	O4IH	230	a	TX	87 1/8	51 1/8	37 11/32	39x2	48x2½	½
6	217	5.1	148	25.3	77–3200	L	C	S	4–2½	5.34	CC	Ha	Car	M	DR	DR	P.BB	Fe	Own	Own	Own	O4IH	232	a	TX	91 1/16	55 1/32	34	39x2	48x2½	½
7	242	5.4	170	27.3	80–3200	L	C	A	4–2½	6¼	CC	MoHa	Car	M	DR	DR	P.BB	Fe	Own	Own	Own	O4IH	232	a	TX	87 1/8	51 1/8	37 11/32	39x2	48x2½	½
8	309	4.7	200	31.5	98–3000	L	G	S	7–2⅝	11¾	CC	Mo	Det	M	DR	DR	P.BB	Lo	Own	Own	Own	O4IH	232	a	TX	91 1/16	55 1/32	34	39x2	48x2½	½
9	309	4.7	200	31.5	98–3000	L	G	S	7–2⅝	11¾	CC	Mo	Det	M	DR	DR	P.BB	Lo	Own	Own	Own	O4IH	232	a	TX	91 1/16	55 1/32	34	39x2	48x2½	½
10	309	4.7	200	31.5	98–3000	L	G	S	7–2⅝	11¾	CC	Mo	Det	M	DR	DR	P.BB	Lo	Own	Own	Jac	O4IH	348	a	CD	124 11/16	69¾	33 11/16	42x3	56½x3½	½
11	309	4.7	200	31.5	98–3000	L	G	S	7–2⅝	11¾	CC	Mo	Det	M	DR	DR	P.BB	Lo	Own	Own	Jac	O4IH	348	a	CD	124 11/16	69¾	33 11/16	42x3	56½x3½	½
12	309	4.7	200	31.5	98–3000	L	G	S	7–2⅝	11¾	CC	Mo	Det	M	DR	DR	P.BB	Lo	Own	Own	Jac	O4IH	416	a	CD	99¾	65¾	34	42x3	56x3½	½
13	385	5.0	260	39.2	115–3000	L	G	S	9–2¾	13	CC	Mo	Str	M	DR	DR	P.BB	Lo	Own	Own	Jac	O4IH	416	a	CD	99¾	65¾	34	42x3	56x3½	½
14	330	4.5	213	33.7	61–2100	L	G	C	7–3r	9⅛	FP	No	Str	V	AL	AL	D.BL	Mo	Cle	Shu 5510	Jac	O4IH	600	a	CD	99 23/32	65 11/32	34 1/16	42x3	56x3½	½
15	312	4.5	174	28.9	57–2100	L	G	C	3–3 11/16 r	10 1/16	PS	No	Zen	V	El	AL	D.BL	Mo	Cle	Shu 5550	Ros	L4IHV	665	a	TD	Opt	80	34	39x2½	50x2⅞	½
16	428	4.5	280	45.9	102–2400	L	G	C	7–3r	9⅞	FP	No	Str	P	AL	AL	D.BL	Yo	Cle	Shu 5550	Ros	T2IM	495	a	2	Opt	86	34	39x2½	52x3	½
17	525	4.5	348	48.6	111–2200	L	G	C	7–3	11½	FP	Mo	Str	P	AL	AL	D.BL	Yo	Pet	Shu 637	Ros	L4IHV	775	a	TD	Opt	80	34	39x2½	52x3	½
18	572	4.5	358	48.6	105–2200	L	G	C	4–3	10 1/16	FP	Mo	Str	V	AL	AL	D.BL	Mo	Cle	Shu 655	Ros	L4IHV	855	a	TD	Opt	80	34	39½x3	52x3½	½
19	382	4.6	250	43.3	95–2500	L	G	N	7–2⅝	12 23/32	CC	Ha	Zen	M	DR	DR	P.BB	Yo	Spi	Cla F308	Ros	L4IHV	350	a	TX	136¾	82	34	40½x3	55½x3	½
20	222	4.9	142	27.3	62–2800	L	G	A	4–2⅝	6½	FP	No	Zen	M	DR	DR	P.Lo	Pe	Spi	Tim 30010H	Ros	L4IH	257	G	TX	132	77¾	34	32¾x2	50x2½	½
21	255	5.3	182	27.3	90–3200	F	G	A	4–2⅝	7 1/16	FP	Wa	Zen	M	My	DR	P.BL	Pe	Spi	Tim 31000H	Ros	L4IH	306	G	TX	144	83½	34	37x2½	56x3	½
22	358	5.2	254	38.4	110–2800	F	G	A	7–2⅞	12½	FP	Wa	Zen	M	My	DR	P.BL	Pe	Spi	Tim 33020H	Ros	L4IHV	355	G	FD	167½	97½	34	40x2½	56x3	½
23	358	5.2	254	38.4	110–2800	F	G	A	7–2⅞	12½	FP	Wa	Zen	M	My	DR	P.BL	Pe	Spi	Tim 35020H	Ros	L4IHV	398	G	FD	167½	97½	34	41x2½	56x3	½
24	462	5.2	324	46.0	125–2600	F	G	A	7–3	13½	FP	Wa	Zen	M	My	DR	P.BL	Pe	Spi	Tim 35000H	Ros	L4IHV	485	G	FD	172 1/16	101½	33½	41x3	56x3½	½
25	462	5.2	324	46.0	125–2600	F	G	A	7–3	13⅝	FP	Wa	Zen	M	My	DR	P.BL	Pe	Spi	Tim 36020H	Ros	L4IHV	717	G	FD	172 1/16	101 5/8	33½	41x3	56x3½	½
26	200	4.7	126	24.0	50–2700	L	C	A	3–2¼	5⅝	CC	Car	M	DR	DR	P.BB	Lo	Spi	Cla F212	Ge	L4IH	200	a	TX	....	....	34	38½x2¼	50x2½	½
27	228	4.7	149	27.3	62–2600	L	G	C	7–2½	10 11/16	PC	Mo	Car	M	DR	DR	P.BB	Lo	Spi	Cla F212	Ge	L4IH	250	a	TX	101	51½	34	38x2½	50x2½	½
28	263	5.4	164	31.5	67–2600	L	G	A	7–2½	10 11/16	PC	Mo	Car	M	DR	DR	P.BB	Lo	Spi	Tim 31020H	Ge	L4IH	269	a	TX	101	51½	34	38x2½	50x2½	½
29	282	5.4	176	33.7	72–2600	L	G	A	7–2½	10 11/16	PC	Mo	Car	M	DR	DR	P.BB	Lo	Spi	Cla F308	Ge	L4IH	336	a	TD	101	51½	34	38x2½	50x2½	½
30	251	4.1	162	25.6	50–2000	L	G	C	3–2⅜	7½	CC	Wa	Zen	V	DR	DR	P.BB	Lo	PS	Own 7720	Ros	L4IH	337	a	TI	119	71	34	38x2½	50x3	½
31	251	4.1	162	25.6	50–2800	L	G	C	3–2⅜	7½	CC	Wa	Zen	V	DR	DR	P.BB	Lo	PS	Own 7720	Ros	L4IH	337	a	TI	119	71	34	38x2½	52x3	½
32	315	5.0	200	33.8	73–2500	L	G	A	7–2⅝	12½	FP	Wa	Zen	M	DR	DR	P.BB	Lo	Spi	Cla F320	Ge	L4IHV	379	a	TI	119	71	34	38x2½	51¾x3	½
33	381	4.8	240	40.8	85–2400	L	G	A	7–2⅝	12½	FP	Wa	Zen	M	DR	DR	P.BB	Lo	Spi	Cla F320	Ge	L4IHV	336	a	FD	115	82	34	42x2½	52x3	½
34	381	4.8	240	40.8	85–2400	L	G	A	7–2⅝	12½	FP	Wa	Zen	M	DR	DR	P.BB	Lo	Spi	Cla F320	Ros	L4IHV	379	a	FD	115	82	34	42x2½	52x3	½
35	339	4.2	212	38.4	80–2200	H	C	C	7–2¾	13 1/16	CC	KP	Zen	M	DR	DR	P.BB	Lo	PS	Own 7738	Ros	L4IHV	379	a	FD	115	82	34	42x2½	52x3	½
36	339	4.2	212	38.4	80–2200	H	C	C	7–2¾	13 1/16	CC	KP	Zen	M	DR	DR	P.BB	Lo	PS	Own 7738	Ros	L4IHV	379	a	TI	117	79	34	42x2½	54x3	½
37	318	4.6	202	36.0	80–2500	L	G	C	7–2⅝	12 11/16	CC	KP	Zen	M	DR	DR	P.BB	Lo	PS	Own 7738	Ros	L4IHV	379	a	TI	117	79	34	42x2½	54x3	½
38	318	4.6	202	36.0	80–2500	L	G	C	7–2⅝	12 11/16	CC	KP	Zen	M	DR	DR	P.BB	Lo	PS	Cla F318	Ros	L4IHV	379	a	TI	113	71	34	40x2¼	52x3	½
39	381	4.2	237	40.8	85–2200	H	C	C	7–2¾	13 1/16	CC	KP	Zen	M	DR	DR	P.BB	Lo	PS	Cla F318	Ros	L4IHV	379	a	TI	113	71	34	40x2¼	52x3	½
40	428	4.2	268	45.9	100–2200	H	C	C	7–2¾	13 1/16	CC	KP	Zen	M	DR	DR	P.BB	Lo	Spi	Own 7720	Ros	L4IHV	465	a	TD	117	79	34	42x2½	54x3	½
41	428	4.2	268	45.9	100–2200	H	C	C	7–2¾	13 1/16	CC	KP	Zen	M	DR	DR	P.BL	Lo	Spi	Tim 36020H	Ha	L4IHV	513	a	TD	162	102	34	42x3	56x3½	½
42	471	3.7	288	40.0	61–1350	L	G	C	3–2⅝	11½	FP	Pe	Zen	V	AB	DR	P.BB	Lo	PS	Own 5008	Ha	W4IA	623	a	TD	162	102	34	42x3	56x3½	½
43	428	4.2	268	45.9	100–2200	H	C	C	7–2¾	13 1/16	CC	KP	Zen	M	DR	DR	P.BL	Lo	PS	Own 5008	Ge	T2IMV	568	a	RI	151	87	38	44x3	56x3½	½
44	200	4.6	128	24.0	50–2800	L	G	A	3–2	7	PS	Ha	Zen	P	Ow	Ow	P.Ow	Ow	Spi	Own 500s	Ros	T2IMV	458	a	RI	151	87	38	44x3	56x3½	½
45	200	4.6	128	24.0	50–2800	L	G	A	3–2	7	PS	Ha	Zen	P	Ow	Ow	P.Lo	Ow	Spi	Own	Own	O4IM	186	a	4I	....	31⅞	44	31 1/16 x1¾	44⅝x2¼	N
46	200	4.6	128	24.0	50–2800	L	G	A	3–2	7	PS	Ha	Zen	P	Ow	Ow	P.Lo	Ow	Spi	Own	Own	O4IM	344	a	2I	94¾	51¼	38	33x2¼	50x2½	O
47	220	5.5	148	30.0	81–3800	L	G	A	3–2	5 11/16	PS	Mo	Det	P	Ow	Ow	P.Lo	Ow	Spi	Own	Own	O4IM	344	a	2I	120 1/16	76 1/16	38	33x2¼	50x2½	O
48	220	5.5	148	30.0	81–3800	L	G	A	3–2	5 11/16	PS	Mo	Det	P	Ow	Ow	P.Lo	Ow	Spi	Own	Own	O4IM	344	a	2I	109 5/8	51 1/16	38	33x2¼	50x2½	O
49	220	5.5	148	30.0	81–3800	L	G	A	3–2	5 11/16	PS	Mo	Det	P	Ow	Ow	P.Lo	Ow	Spi	Own	Own	O4IM	344	a	2I	145 5/8	76 1/16	38	33x2¼	50x2½	O
50	221	4.6	155	24.3	69–2800	H	G	B	4–2⅝	7 15/32	PC	Op	Zen	M	DR	DR	P.Ow	Hr	Own	Own	Own	O4IM	186	a	4I	....	31 1/16	44	34 1/16 x2¼	44½x2¼	N
51	221	4.6	155	24.3	69–2800	H	G	B	4–2⅝	7 15/32	PC	Op	Zen	M	DR	DR	P.Ow	Hr	Own	Own	Jac	O4IM	186	p	2I	85 1/16	50¼	37 1/16	36x1¾	45x2½	0P
52	221	4.6	155	24.3	69–2800	H	G	B	4–2⅝	7 15/32	PC	Op	Zen	M	DR	DR	P.Ow	Hr	Spi	Own	Jac	O4IM	184	Pa	2I	106 7/16	60	37	36x1¾	45x2½	O
53	221	4.6	155	24.3	69–2800	H	G	B	4–2⅝	7 15/32	PC	Op	Zen	M	DR	DR	P.Ow	Hr	Spi	Own	Jac	OB4IM	233	Pa	TX	85 1/16	50¼	37 1/16	36x1¾	45x2½	½
54	221	4.6	155	24.3	69–2800	H	G	B	4–2⅝	7 15/32	PC	Op	Zen	M	DR	DR	P.Ow	Lo	Spi	Own	Jac	OB4IM	233	Pa	TX	106 7/16	60	37	36x1¾	45x2½	½
55	221	4.6	155	24.3	69–2800	H	G	B	4–2⅝	7 15/32	PC	Op	Zen	M	DR	DR	P.Ow	Lo	Spi	Own	Jac	B4IM	328	a	TX	107	60	34	38x2 ●	50x3	½
56	257	4.5	185	28.3	76–2500	H	G	B	4–2⅝	7 15/32	PC	Ha	Zen	M	DR	DR	dp.Ow	Lo	Spi	Own	Jac	B4IM	337	a	TX	107	60	34	38x2	50x3	½
57	257	4.5	185	28.3	76–2500	H	G	B	4–2⅝	7 15/32	PC	Ha	Zen	M	DR	DR	dp.Ow	Lo	Spi	Own	Jac	B4IM	328	a	TX	107	60	34	38x2	50x3	½
58	257	4.5	185	28.3	76–2500	H	G	B	4–2⅝	7 15/32	PC	Ha	Zen	M	DR	DR	dp.Ow	Lo	Spi	Own	Jac	B4IM	337	a	TX	107	60	34	38x2½	50x3	½
59	257	4.5	185	28.3	76–2500	H	G	B	4–2⅝	7 15/32	PC	Ha	Zen	M	DR	DR	dp.Ow	Lo	Spi	Own	Jac	B4IM	337	a	TX	107	60	34	38x2½	50x3	½
60	331	4.4	230	33.7	94–2500	H	G	A	4–2½	8 23/32	PC	Ha	Str	M	DR	DR	dp.Ow	Lo	Spi	Own	Jac	B4IM	415	a	TX	107	60	34	38x2½	50x3	½
61	331	4.4	230	33.7	94–2500	H	G	A	4–2½	8 23/32	PC	Ha	Str	M	DR	DR	dp.Ow	Lo	Spi	Own	Jac	B4IM	337	a	TX	107	60	34	38x2½	50x3	½
62	331	4.4	230	33.7	94–2500	H	G	A	4–2½	8 23/32	PC	Ha	Str	M	DR	DR	dp.Ow	Lo	Spi	Own	Jac	B4IM	415	a	TX	107	60	34	38x2½	50x3	½
63	331	4.4	230	33.7	94–2500	H	G	A	4–2½	8 23/32	PC	Ha	Str	M	DR	DR	dp.Ow	Lo	Spi	Own	Jac	B4IMV	379	a	TX	125	70	34 1/16	40x3	50x3	½
64	331	4.4	230	33.7	94–2500	H	G	A	4–2½	8 23/32	PC	Ha	Str	M	DR	DR	dp.Ow	Lo	Spi	Own	Jac	B4IMV	449	a	TX	125	70	34 1/16	40x3	50x3	½
65	331	4.4	230	33.7	94–2500	H	G	A	4–2½	8 23/32	PC	Ha	Str	M	DR	DR	dp.Ow	Lo	Spi	Own	Jac	B4IMV	449	a	TX	125	72	34	40x3	50x3	½
66	331	4.4	230	33.7	94–2500	H	G	A	4–2½	8 23/32	PC	Ha	Str	M	DR	DR	dp.Ow	Lo	Spi	Own	Jac	B4IMV	449	a	TX	125	69¼	34 1/16	40x3	54x3	½
67	331	4.4	230	33.7	94–2500	H	G	A	4–2½	8 23/32	PC	Ha	Str	M	DR	DR	dp.Ow	Lo	Spi	Own	Jac	B4IMV	557	a	TX	125	69¼	34 1/16	40x3	54x3	½
68	331	4.4	230	33.7	94–2500	H	G	A	4–2½	8 23/32	PC	Ha	Str	M	DR	DR	dp.Ow	Lo	Spi	Own	Jac	B4IMV	557	a	TX	125	72	34	40x3	54x3	½
69	331	4.4	230	33.7	94–2500	H	G	A	4–2½	8 23/32	PC	Ha	Str	M	DR	DR	dp.Ow	Lo	Spi	Own	Jac	B4IMV	449	a	TX	125	69¼	34 1/16	40x3	54x3	½
70	331	4.4	230	33.7	94–2500	H	G	A	4–2½	8 23/32	PC	Ha	Str	M	DR	DR	dp.Ow	Lo	Spi	Own	Jac	B4IMV	557	a	TX	125	69¼	34 1/16	40x3	54x3	½
71	400	4.6	296	40.9	110–2300	H	G	A	4–2.7	8 23/32	FP	Ha	Str	M	DR	DR	dp.Ow	Lo	Spi	Own	Jac	B4IMV	557	a	TX	125	72	34	40x3	54x3	½
72	400	4.6	296	40.9	110–2300	H	G	A	4–2.7	8 23/32	FP	Ha	Str	M	DR	DR	dp.Ow	Lo	Spi	Own	Jac	B4IMV	449	a	TX	125	69¼	34 1/16	40x3	54x3	½
73	400	4.6	296	40.9	110–2300	H	G	A	4–2.7	8 23/32	FP	Ha	Str	M	DR	DR	P.Ow	Lo	Spi	Own	Jac	B4IMV	557	a	TX	125	69¼	34 1/16	40x3	54x3	½
74	400	4.6	296	40.9	110–2300	H	G	A	4–2.7	8 23/32	FP	Ha	Str	M	DR	DR	dp.Ow	Lo	Spi	Own	Jac	B4IMV	557	a	TX	125	72	34	50x3	54x3	½
75	400	4.6	296	40.9	110–2300	H	G	A	4–2.7	8 23/32	FP	Ha	Str	M	DR	DR	dp.Ow	Lo	Spi	Own	Jac	B4IMV	557	a	TX	125	70	34 1/16	40x3	54x3	½
76	400	4.6	296	40.9	110–2300	H	G	A	4–2.7	8 23/32	FP	Ha	Str	M	DR	DR	P.Ow	Lo	Spi	Own	Jac	Ws4IA	618	a	TX	125	70	34 1/16	40x3	54x3	½
77	400	4.6	296	40.9	110–2300	H	G	A	4–2.7	8 23/32	FP	Ha	Str	M	DR	DR	P.Ow	Lo	Spi	Own	Jac	Ws4IA	618	a	TX	125	72	34	50x3½	54x3	½
78	450	4.6	338	46.7	125–2300	H	G	A	4–2.7	8 23/32	FP	Ha	Str	M	DR	DR	dp.Ow	Lo	Spi	Own	Jac	B4IMV	594	a	TX	137	82	34 1/16	50x3½	54x3	½
79	400	4.6	296	40.9	110–2300	H	G	A	4–2.7	8 23/32	FP	Ha	Str	M	DR	DR	P.Ow	Lo	Spi	Own	Jac	Ws4IA	618	a	TX	125	72	34	50x3½	54x3	½
80	525	4.5	380	48.6	128–2100	H	C	A	7–2¾	14 13/32	FP	Ha	Str	M	DR	DR	dp.Ow	Lo	Spi	Own	Jac	B4IMV	594	a	TX	210	117	34 1/16	50x3½	54x3	½
81	525	4.5	380	48.6	128–2100	H	C	A	7–2¾	14 13/32	FP	Ha	Str	M	DR	DR	dp.Ow	Lo	Spi	Own	Jac	B4IMV	594	a	TX	137	82	34 1/16	50x3½	54x3	½
82	616	4.5	450	57.0	149–2100	H	C	A	7–2¾	14 13/32	FP	Ha	Str	M	DR	DR	dp.Ow	Lo	Spi	Own	Jac	B4IMV	594	a	TX	137	82	34 1/16	50x3½	54x3	½
83	200	4.7	121	24.0	50–2800	L	C	A	3–2⅛	5⅞	FP	No	Til	M	AL	AL	D.Jo	Pe	Blo	Tim 30000H	Jac	B4IA	638	a	TX	137	82	34 1/16	50x3½	....	½
84	214	5.3	142	27.4	71–3200	L	C	A	4–2⅜	6¾	FP	No	Til	M	AL	AL	D.Jo	Pe	Blo	Tim 30000H	Ros	L4IH	249	p	FD	81 1/2	51¾	34	36x2¼	45x2½	½
85	200	4.7	121	24.0	50–2800	L	C	A	3–2⅛	5⅞	PC	No	Til	M	AL	AL	D.Jo	Pe	Blo	Tim 30000H	Ros	L4IH	249	p	FD	81½	51¾	34	36x2¼	45x2½	½
86	214	5.3	142	27.3	71–3200	L	C	A	4–2⅜	6¾	PC	No	Til	M	AL	AL	D.Jo	Pe	Blo	Tim 30000H	Ros	L4IH	249	p	FD	81¾	51½	34	36x2¼	45x2½	½
87	299	4.9	198	33.7	85–2800	L	G	C	4–2⅝	9½	PC	No	Til	M	AL	AL	P.BL	Pe	Blo	Tim 30000	Ros	L4IH	249	p	FD	81¾	51½	34	36x2¼	45x2½	½
88	224	4.7	146	25.3	61–2900	L	G	C	4–2⅜	8 1/16	PC	Mo	Zen	V	AL	AL	D.Jo	Pe	Blo	Tim 31000H	Ros	L4IH	260	p	FD	81¾	51½	34	36x2¼	45x2½	½
89	299	4.7	198	33.7	85–2800	L	G	C	4–2⅝	9½	PC	No	Til	M	AL	AL	P.BL	Pe	Blo	Tim 31000	Ros	L4IH	260	p	FD	94	60⅛	34	40x2¼	50x2½	½
90	227	4.7	142	27.3	55–2400	L	G	C	3–2⅛	5⅞	PC	No	Til	M	AL	AL	D.Jo	Pe	Blo	Tim 31000H	Ros	L4IH	269	p	FD	81	51¾	34	36x2¼	50x2½	½
91	248	5.0	136	27.3	50–2800	L	G	C	7–2⅜	10	FP	No	Til	M	AL	AL	D.Jo	Pe	Blo	Tim 31000H	Ros	L4IH	260	p	FD	81	51¾	34	36x2¼	45x2½	½
92	278	4.7	182	31.5	85–3300	L	G	C	7–2⅜	10	PC	Mo	Til	M	AL	AL	P.BL	Pe	Blo	Tim 31000H	Ros	L4IH	260	p	FD	81	51¾	34	36x2¼	45x2½	½
93	282	5.4	176	33.7	73–2800	L	G	C	7–2½	10 1/16	PC	Mo	Zen	M	AL	AL	P.BL	Pe	Blo	Tim 31000H	Ros	L4IH	260	P	FD	120	77¼	34	42x2¼	56x3	½
94	299	4.9	198	33.7	85–2800	L	G	C	4–2⅝	9½	P	No	Til	M	AL	AL	P.BL	Pe	Blo	Tim 31000	Ros	L4IH	260	P	FD	81	51¾	34	36x2¼	45x2½	½
95	380	4.7	238	40.8	88–2400	H	C	C	7–2¾	13 1/16	PC	No	Zen	M	AL	AL	P.BL	Pe	Blo	Tim 31000	Ros	L4IH	260	p	FD	120	77¼	34	42x2¼	56x3	½
96	299	4.9	198	33.7	85–2800	L	G	C	4–2⅝	9½	PC	Mo	Til	M	AL	AL	P.BL	Pe	Blo	Tim 33000H	Ros	L4IHV	330	a	FD	120	77¼	34	42x2¼	56x3	½
97	428	4.6	268	45.9	100–2200	H	C	C	7–2¾	13 1/16	PC	No	Zen	M	AL	AL	P.BL	Pe	Blo	Tim 33000	Ros	L4IHV	330	a	FD	120	77¼	34	42x2¼	56x3	½
98	318	4.5	203	36.	80–2700	L	G	C	7–2⅝	12 11/16	CC	Mo	Zen	M	AL	AL	P.BL	Pe	Blo	Tim 33000H	Ros	L4IHV	330	a	FD	120	77¼	34	42x2¼	56x3	½
99	353	4.8	245	36.2	98–2700	L	G	C	4–2¾	10	PC	Mo	Til	M	AL	AL	D.Jo	Pe	Blo	Tim 33000H	Ros	L4IHV	330	a	FD	120	77¼	34	42x2¼	50x3	½
100	448	17.	280	38.0	83–1800	H	G	N	5–3¼	12	P	En	No	M	CI	LN	D.BL	Pe	Blo	Tim 33000	Ros	L4IHV	375	a	FD	127	74¼	34	42x2¼	56x3	½
101	380	4.7	238	40.8	88–2400	H	C	C	7–2¾	13 1/16	PC	Mo	Zen	M	AL	AL	D.Jo	Pe	Blo	Tim 33000	Ros	L4IHV	375	a	FD	127	74¼	34	42x2¼	56x3	½
102	428	4.6	268	45.9	100–2200	H	C	C	7–2¾	13 1/16	PC	Mo	Zen	M	AL	AL	D.Jo	Pe	Blo	Tim 33000	Ros	L4IHV	375	a	FD	156	90	41 1/16	44x2½	60x3	½
103	428	4.6	268	45.9	100–2200	H	C	C	7–2¾	13 1/16	PC	Mo	Zen	M	AL	AL	D.Jo	Pe	Blo	Tim 33000	Ros	L4IHV	375	a	FD	176 1/16	119 1/16	41 1/16	44x2½	60x3	½
104	779	4.5	505	66.2	143–2300	L	G	H	7–3½	17	PC	No	Til	M	AL	AL	D.BL	Pe	Blo	Tim 35000	Ros	L4IHV	466	a	FD	98	67	34	42x2½	52x3	½
105	428	4.1	268	45.9	100–2200	H	C	C	7–2¾	13 1/16	PC	Mo	Zen	M	AL	AL	D.BL	Pe	Blo	Tim 35000	Ros	L4IHV	466	a	FD	98	67	34	42x2¼	52x3	½
106	672	17.	440	57.0	125–1800	H	G	N	7–3¼	16½	P	En	No	M	CI	LN	D.BL	Pe	Blo	Tim 27450	Ros	Ws4IA	576	a	FD	128 1/16	73 1/16	36	46x3	58x3½	½
107	611	4.1	382	54.1	127–2300	L	G	A	7–3	13 1/16	PC	Pe	Zen	M	AL	AL	D.Fu	Pe	Blo	Tim 27450	Ros	Ws4IA	576	a	FD	128½	73 1/16	36	46x3	58x3½	½
108	255	4.7	160	27.3	65–2800	L	G	C	4–2⅜	8 1/16	PC	No	Zen	M	AL	AL	P.BB	Ow	Spi	Tim 30000H	Ros	L4IH	268	a	TD	Opt	71	31	40x2½	54x3	½
109	255	5.4	182	27.3	90–3200	F	G	C	4–2⅜	7 1/16	PC	Wa	Zen	M	MY	LN	P.BB	Ow	Spi	Tim 31000H	Ros	L4IH	342	a	TD	Opt

Line Number	MAKE AND MODEL	GENERAL (See Keynote)						TIRE SIZE		MAJOR UNITS								FRAME	
										ENGINE		TRANSMISSION			REAR AXLE				
		Tonnage Rating	Chassis Price	Standard Wheelbase	Max. W. B. Furnished	Gross Vehicle Weight	Chassis Wt. (Stripped)	Front	Rear	Make and Model	No. of Cylinders Bore and Stroke	Make and Model	Location and Forward Speeds	Aux. Location and Speeds	Make and Model	Gear and Type	Drive and Torque	GEAR RATIOS In High	GEAR RATIOS In Low	Side Rail Dimensions	Type
1	Hug.....43L	5	3850	146	201	28105	8905	B9.75/20	DB9.75/20	Bud L525	6-4½x5½	Fu VUOG	U 5	No	Wis 1737KH	2F	H	9.16	64.0	8x3x¼	T
2	(Concluded)..97L	5	5815	144	144	35620	10810	B10.50/20	DB10.50/20	Bud L525	6-4½x5½	Fu VU	U 5	A 3	Wis 19027	2F	H	11.1	178.	8x4x¼	T
3	Indiana.....85	1½	885	141	186	10000	3950	B6.50/20	DB6.50/20	Her JXA	6-3¾x4½	BL 124	U 4	No	Tim 53200H	SF	H	5.66	35.1	7½x2½x½	T
4	95	2	1095	141	186	12000	4400	P32x6	DP32x6	Her JXC	6-3¾x4¼	BL 224	U 4	No	Tim 54300H	SF	H	5.85	36.2	7½x2½x½	T
5	.....95DR	2½	1275	141	186	15000	4650	B7.50/20	DB7.50/20	Her JXC	6-3¾x4¼	BL 224	U 4	Op	Wis 4916L	2F	H	6.66	41.2	7½x2½x½	T
6	.....17A	3	2300	156	212	17000	6300	B8.25/20	DB8.25/20	Her WXC	6-4x4½	BL 3341	U 4	A 3	Tim 58205H	SF	H	6.83	43.0	8x3x¼	T
7	.....17ADR	3	2475	156	212	18000	6350	B8.25/20	DB8.25/20	Her WXC	6-4x4½	BL 3341	U 4	Op	Wis 70000H	2F	R	7.06	44.5	8x3x¼	T
8	17	3	2450	170	224	18000	6600	B8.25/20	DB8.25/20	Her YXC	6-4⅜x4¾	BL 3341	U 4	Op	Tim 58205H	SF	R	6.14	38.7	8½x3x½	T
9	.....17DR	3	2675	170	224	19000	6700	B8.25/20	DB8.25/20	Her YXC	6-4⅜x4¾	BL 334	U 4	Op	Wis 70000	2F	R	6.28	38.6	8½x3x½	T
10	.....19DR	3½	3400	170	224	22000	7600	B9.00/20	DB9.00/20	Her YXC	6-4⅜x4¾	BL 524	U 4	Op	Wis 1237H	2F	R	7.2	52.3	8½x3x½	T
11	.....43DR	4	4300	170	224	25000	8000	B9.75/20	DB9.75/20	Her RXB	6-4½x5¼	BL 524	U 4	Op	Wis 1627KH	2F	R	6.96	50.7	8½x3x½	T
12	.....45DR	5	4800	170	224	25000	8700	B9.75/20	DB9.75/20	Her RXC	6-4½x5¼	BL 534	U 4	Op	Wis 1737H	2F	R	7.14	45.4	8½x3x½	T
13	.....47DR	5-7	7500	188	234	28000	10500	B10.50/20	DB10.50/20	Cum.6HDle.	6-4⅞x6	BL 7351	A 5	No	Wis 1910W	2F	R	7.16	45.0	8¼x3x½	T
14	International (8) .D1	½	360	113	113	4200	2180	B5.25/18	B5.25/18	Own D	6-3⅛x4½	Own D	U 3	No	Own D-55	S½	H	4.18	12.7	5¾x2¼x⅞	
15	.....(A)...M2	1	850	118	118	7000	3180	B6.50/20	B6.50/20	Wau XAH	4-3⅝x4½	Own H-4-A	U 4	No	Own 713	SF	H	6.16	39.5	11x2¾x¾	D
16	.....A2	1½	615	136	160	8000	2945	B6.00/20	B6.00/20	Wau XAH	4-3⅝x4½	Own H-4-A	U 4	No	Own 708	SF	H	6.16	39.5	5⅞x2¾x⅞	
17	.....B2	1½	615	136	136	8000	2945	B6.00/20	B6.00/20	Wau XAH	4-3⅝x4½	MM "O"	U 3	No	Own 704	SF	H	6.16	47.3	5⅞x2¾x⅞	
18	.....A3	1½	695	136	160	10000	3572	P30x5	P32x6	Lyc SAH	6-3¼x4½	Own H-4-A	U 4	No	Own 710	SF	H	5.28	33.8	7x2¾x⅞	
19	.....A3½	1½	970	136	160	10100	3600	B6.50/20	DB6.50/20	Lyc SAH	6-3¼x4½	WG T7	U 4	No	Own 710	SF	H	5.28	33.8	7x2¾x⅞	
20	.....A4	1½	895	138	164	10000	4032	B6.00/20	DB6.00/20	Lyc 4SLH	6-3¼x4½	WG T7	U 4	No	Own 800	S½	H	6.50	42.9	6½x2¼x¼	
21	.....B-3	1½	695	136	160	10000	3385	P30x5	P32x6	Own FAB2	6-3⅜x4	Own H-4-A	U 4	No	Own 720	SF	H	5.29	33.8	7x2¾x⅞	
22	.....B4	2	1045	145	185	12750	4055	B6.50/20	DB6.50/20	Own FAB-3	6-3⅜x4	Own H-4-A	U 4	No	Own 750	SF	H	6.5	41.6	8x3¼x⅞	
23	.....A4	2	1625	145	185	15750	5221	P32x6	DP32x6	Own FBB	6-3⅝x4½	OwnH-5	U 5	No	Own 902	SF	H	6.50	47.8	7x3¾x⅞	
24	.....A5	3	2100	156	210	18750	5895	P34x7	DP34x7	Own FBB	6-3⅝x4½	OwnH-5	U 5	No	Own 1032	SF	H	7.16	64.7	8x3¾x⅞	
25	.....A6	3	2450	156	210	20850	6120	P34x7	DP34x7	Own FBB	6-3⅝x4½	OwnH-5	U 5	No	Own 1150	2F	H	8.5	76.9	9¼x3¾x⅞	
26	.....W2	3½	3900	148	200	24000	8450	S36x10	HaS 151	4-4¼x5½	Own H-6	U 5	No	Own 1200	2F	H	6.85	83.9	7x3¾x⅞	
27	.....W3	5	4850	160	235	28000	10125	S36x6°	S40x12°	HaS 152	4-4¾x5½	OwnH -7	U 5	No	Own 1300	2F	H	7.85	70.5	8x3¾x⅞	
28	.....A7	5-7½	6200	160	225	37000	11590	B9.75/20	DB9.75/20	Own FDB	6-4¼x5½	Own H-7	U 5	No	Own 1301	2F	H	6.37	57.2	12½x3¼x⅝	
29	.....A8	7½	6300	160	225	37000	11590	B9.75/20	DB9.75/20	Own FEB	6-5x5½	Own H-7	U 5	No	Own 1301	2F	H	6.37	57.2	12½x3¼x⅝	
30	Kenworth.....88	2	1480	146	200	13400	4400	P32x6	DP32x6	Her JXC	6-3¾x4¼	BL 234	U 4	Op	Tim 54300H	SF	H	5.83	37.4	8x3x¼	
31	.....101B	2-2½	2050	144	186	13400	4700	B7.50/20	DB7.50/20	Bud H298	6-3¾x4½	BL 234	U 4	...	Tim 54300H	SF	H	5.83	37.4	8x3x¼	
32	89	2½	1670	146	200	15000	4600	B7.50/20	DB7.50/20	Her JXC	6-3¾x4¼	BL 234	U 4	Op	Tim 56200H	SF	H	6.16	39.5	8x3x¼	
33	127	2½-3	2600	154	202	16300	5490	B8.25/20	DB8.25/20	Her WXC	6-4x4½	BL 334	U 4	...	Tim 56200H	SF	H	6.16	40.7	8x3x¼	
34	90	3	1820	146	200	18200	5500	B7.50/20	DB7.50/20	Her JXC	6-3¾x4¼	BL 234	U 4	Op	Tim 58205H	SF	H	6.83	43.8	8x3x¼	
35	.....146B	3-4	3300	158	206	19500	5960	B9.00/20	DB9.00/20	Bud K393	6-4¼x4¾	BL 334	U 4	Op	Tim 58205H	SF	H	6.83	43.4	8x3x¼	
36	.....166B	3½-4	3850	156	204	20700	6890	B9.00/20	DB9.00/20	Bud K393	6-4¼x4¾	BL 334	U 4	Op	Tim 58205H	SF	H	6.83	43.4	7x9x3x¼	
37	.....166A	3½-4	4330	156	204	20700	6890	B9.00/20	DB9.00/20	HaS 147	6-4x5	BL 334	U 4	Op	Tim 58205H	SF	H	6.83	43.4	7x9x3x¼	
38	180	4-5	4675	155	221	25600	7710	B9.75/20	DB9.75/20	Her YXC2	6-4½x4¾	BL 1554	U 4	A 3	Tim 75720H	2F	H	7.33	105.	7x9x3x¼	
39	241	5-7	5450	169	221	27800	9000	B9.75/20	DB9.75/20	Her RXB	6-4½x5¼	BL 714	U 4	A 3	Tim 76720W	2F	H	7.33	85.5	7x9x3x¼	
40	.....241A	5-7	6500	169	228	27800	9500	B9.75/20	DB9.75/20	HaS 160	6-4½x5½	BL 714	U 4	A 3	Tim 76720W	2F	H	7.33	85.5	8x3x⅞	
41	.....241B	5-7	6150	174	228	27800	9500	B9.75/20	DB9.75/20	Bud GL-6	6-4½x6	BL 714	U 4	A 3	Tim 76720W	2F	H	7.33	85.5	8x3x⅞	
42	.....241C	5-7	7200	174	228	27800	10000	B9.75/20	DB9.75/20	HaS 175	6-5x6	BL 714	U 4	A 3	Tim 76720W	2F	H	6.38	86.5	8x3x⅞	
43	Kleiber.....80	1½-2½	1200	140	160	11200	3950	B6.50/20	DB6.50/20	Con 18E	6-3⅝x4	BL 224	U 4	No	Tim 53200H	BF	H	5.81	34.0	5⅝x3¼x¾	
44	100	2-3½	1570	170	180	13400	4400	B7.00/20	DB7.00/20	Con 20C	6-3⅝x4⅝	BL 324	U 4	No	Tim 54200H	BF	H	6.6	38.7	7½x3x¼	
45	120	2½-4½	1950	170	180	15000	5150	B7.50/20	DB7.50/20	Con E600	6-3¾x4	BL 324	U 4	No	Tim 56200H	BF	H	6.17	33.4	7½x3x¼	
46	140	3-5½	2490	180	190	18000	6500	B8.25/20	DB8.25/20	Con E601	6-3⅞x4½	BL 324	U 4	No	Tim 58200H	BF	R	7.1	38.7	7½x3x¼	
47	210	4-6	3800	190	192	23400	7600	B9.75/20	DB9.75/20	Con 21R	6-4⅝x4¾	BL 55	U 4	No	EatDR2412H	2F	R	7.25	42.0	7½x3x¼	
48	.....KD6	7	6000	206	210	26000	9500	B9.75/20	DB9.75/20	Cum6HDle	6-4⅞x6	BL 714	A 4	A 3	Eat 65041W	2F	R	8.5	91.0	8x3½x⅞	
49	La Fr. Republic.C-2	2	1100	150	162	11000	3800	B6.00/20	DB6.00/20	Lyc SA	6-3¼x4½	WG T9	U 4	No	Tim 53200H	SF	H	5.67	35.9	5⅞x2x⅞	
50	.....D-2	2-2½	1485	162	175	14000	4600	B6.50/20	DB6.50/20	Lyc SB	6-3⅜x4½	WG T9	U 4	No	Tim 54200H	SF	R	5.83	37.9	7x3x¼	
51	.....E-2	2½-3	2005	162	190	17000	5375	P32x6	DP32x6	Lyc ASD	6-3¾x4½	Fu Miu-Bb	U 4	No	Tim 56200H	SF	R	7.47	47.0	7½x3x¼	
52	.....F-3	3½-4	2420	174	198	21000	6240	P34x7	DP34x7	Wau MK	6-4¼x4½	Fu MGU14	U 4	No	Tim 58200H	SF	R	7.8	50.6	8x3x¼	
53	.....H-3	4-5	3285	179	206	26000	7840	B9.75/20	DP9.75/20	Wau MZ	6-4¼x4¾	Fu MRU	U 4	No	Tim 75733H	2F	R	7.97	53.0	8x3x¼	
54	.....M-3	5-6	4640	174	198	32000	8490	B10.50/20	DB10.50/20	Wau 6SRL	6-4⅜x5½	Fu VUOG	U 5	No	Tim 76733H	2F	R	8.85	62.5	9½x3½x⅞	
55	35-4	7-8	6570	174	198	35000	9700	B10.50/24	DB10.50/24	Wau 6-125	6-4⅝x5½	Fu MHU	U 4	No	Tim 78720W	2F	R	8.90	58.2	9½x3½x⅞	
56	Le Moon.....150	1½	1150	140	152	8000	3300	B6.50/20	B6.50/20	Con 20C	6-3¼x4⅝	BL 214	U 4	No	Tim 53200H	BF	H	5.14	31.8	6x3x⅞	
57	200	1½-2	1350	160	178	11200	3600	B7.00/20	DB7.00/20	Con 20C	6-3¼x4⅝	BL 214	U 4	No	Tim 53200H	BF	H	5.14	31.8	6x3x⅞	
58	300	2-3	1575	163	190	12600	4200	B7.50/20	DB7.50/20	Con 20C	6-3¼x4⅝	BL 214	U 4	No	Tim 54200H	BF	H	6.80	42.1	6½x3¾x¼	
59	400	3-4	2175	163	190	15300	5000	B8.25/20	DB8.25/20	Wau 6MS	6-3¾x4¾	BL 314	U 4	No	Tim 56200H	BF	R	6.16	40.6	6½x3¾x¼	
60	505	4-5	2775	160	190	19500	6000	B9.00/20	DB9.00/20	Wau 6MK	6-4¼x4¾	BL 3341	U 4	No	Tim 58205H	BF	R	6.14	40.6	6½x3¾x¼	
61	501	4-5	3150	160	190	19500	6500	B9.00/20	DB9.00/20	Wau 6SRL	6-4½x5½	Fu VUOG	U 5	No	Tim 58205H	BF	R	6.14	40.6	7x4x¼	
62	.....(9) 600	5-6	3450	169	199	21600	7200	B9.75/20	DB9.75/20	Wau 6SRL	6-4⅝x5½	BL 514	U 4	No	Tim 65720H	WF	R	6.00	43.2	9x4x⅞	
63	Mack.....BL	1-2	2500	138	192	.....	4050	B6.00/20	DB6.00/20	Own BJ	6-3¼x5	Own BQ	U 4	No	Tim 52050	SF	H	5.20	27.6	7x3x⅞	
64	.....BG	1½-3	3000	138	192	.....	4800	P32x6	DP32x6	Own BG	6-3⅝x5	Own BG	U 4	No	Own BG	SF	H	5.44	26.8	7x3x⅞	
65	.....BF	2½-4	4200	156	216	.....	6600	B8.25/20	DB8.25/20	Own BG	6-3¾x5	Own AB	U 4	No	Own AB	2F	H	7.01	33.9	7⅞x3x⅞	
66	.....AB	3-5	4000	147	219	.....	6450	P34x7	DP34x7	Own AB	4-4¼x5	Own AB	U 4	No	Own AB	CD	R	7.72	37.4	8x2¼x¼	
67	.....AB	3-5	4200	147	219	.....	6700	P34x7	DP34x7	Own AB	4-4¼x5	Own AB	U 4	No	Own AB	2F	H	7.54	36.6	8x2¼x¼	
68	.....AB	3-5	4150	147	219	.....	6450	P34x7	DP34x7	Own BG	6-3⅝x5	Own AB	U 4	No	Own AB	CD	R	7.72	37.4	8x2¼x¼	
69	.....AB	3-5	4500	147	219	.....	6700	P34x7	DP34x7	Own BG	6-3⅝x5	Own AB	U 4	No	Own AB	2F	H	7.58	36.7	8x2¼x¼	
70	.....BM	3-5	4700	157	211	.....	7500	B9.00/20	DB9.00/20	Own CE	6-4x5½	Own BC	U 4	No	Own AB	2F	H	7.01	40.9	8½x3x¼	
71	.....BC	3½-6	5250	154	226	.....	7850	P36x8	DP36x8	Own CE	6-4x5½	Own BC	U 4	No	Own BC	2F	H	7.58	44.2	8½x3x⅞	
72	.....BC	3½-6	5500	154	226	.....	8000	P36x8	DP36x8	Own CE	6-4x5½	Own BC	U 4	No	Own BC	CD	R	7.88	46.0	8½x3x⅞	
73	.....BX	3½-6	5750	171	225	.....	7900	B9.75/22	DB9.75/22	Own CF	6-4¼x5½	Own BX	U 4	No	Own BX	CD	R	7.88	55.2	9½x3x¼	
74	.....BX	3½-6	5600	171	225	.....	8050	B9.75/22	DB9.75/22	Own CF	6-4¼x5½	Own BX	U 4	No	Own BX	2F	H	7.01	49.4	9½x3x¼	
75	.....BJ	5-8	6450	168	245	.....	9800	B10.50/22	DB10.50/22	Own BK	6-4½x5½	Own AL	A 4	No	Own AK	2F	H	6.92	36.4	11x3¼x¼	
76	.....BQ	6-8	6800	191	245	.....	10000	B10.50/22	DB10.50/22	Own BQ	6-4¾x5¾	Own BQ	A 4	No	Own AK	2F	H	7.43	47.7	10¼x3x¼	
77	.....AK	5-7½	5150	162	228	.....	9500	B10.50/24°	DB10.50/24°	Own AC	4-5x6	Own AC	J 4	No	Own AC	CD	R	7.83	50.5	8⅝x3x⅞	
78	.....AK	5-7½	5250	162	228	.....	9400	B10.50/24°	DB10.50/24°	Own AC	4-5x6	Own AK	A 4	No	Own AK	2F	H	6.92	55.3	8½x2¾x¼	
79	.....AK	6-8	6450	174	240	.....	10400	B10.50/22	DB10.50/22	Own BQ	6-4¾x5¾	Own AC	A 4	No	Own AK	2F	H	7.43	47.7	8⅝x3x⅞	
80	.....BX-8	7½	6250	207	225	.....	9200	B9.75/24	DB9.75/24	Own BX	6-4¼x5½	Own B	U 4	No	Own BX	2F	H	7.54	53.1	9½x3x¼	
81	.....AC Light	5-7½	4950	168	240	.....	9200	B10.50/24°	DB10.50/24°	Own AC	4-5x6	Own AC	J 4	No	Own AC	CD	R	8.46	54.4	8x3x⅞	
82	.....AC Medium	6-8	5500	168	240	.....	9800	S36x6	DS40x6	Own AC	4-5x6	Own AC	J 4	No	Own AC	CD	R	7.75	49.8	8x3x⅞	
83	.....AC Heavy	7½-10	6000	168	240	.....	10150	S36x7	DS40x7	Own AC	4-5x6	Own AC	J 4	No	Own AC	CD	R	8.95	57.4	8x3x⅞	
84	.....AC	6-8	6450	174	240	.....	11400	B10.50/24	DB10.50/24	Own BQ	6-4¾x5¾	Own AC	A 4	No	Own AC	CD	R	8.4	53.9	8¼x3x⅞	
85	.....AP	7½-10	8500	191	216	.....	11700	S36x7	DS40x8	Own AP	6-5x6	Own AC	J 4	No	Own AC	CD	R	8.31	53.3	8¾x3x⅞	
86	Menominee...A-15	1½	1485	144	160	8750	3750	B7.00/20	B7.00/20	Wau TL	6-3½x4¾	Fu MKU10	U 4	No	Cla B373	SF	R	5.00	31.7	5½x3¼x1¼	
87	.....DX-6	2½	2850	156	175	13760	5760	B7.50/20	B7.50/20	Wau 6-90	6-3⅜x4¼	BL 234	U 4	No	Wis 6617	2F	R	5.83	37.3	6x2¾x¼	
88	.....DN-6	3	3275	156	175	15200	6200	B8.25/20	DB8.25/20	Wau MK	6-4¼x4¾	BL 524	U 4	No	Wis 8817	2F	R	6.72	48.9	6x2¼x¼	
89	.....A30	3	3275	165	185	15035	7035	B8.25/20	DB8.25/20	Wau MK	6-4¼x4¾	BL 528	U 8	No	Tim 58206H	SF	R	7.8	90.8	8x3x¼	
90	.....N-6	3½	3715	165	185	16800	6800	B8.25/20	DB8.25/20	Wau 6-110	6-4x4¾	BL 524	U 4	No	Wis 8817	2F	R	7.93	57.7	8x2¾x¼	
91	.....JX-6	5	4650	175	190	20200	7200	B9.00/20	DB9.00/20	Wau 6-125	6-4⅝x5½	BL 724	U 4	No	Wis 1458	2F	R	9.12	64.4	10x2⅝x¼	
92	.....6W-8	8	5800	185	200	28600	11000	B8.25/20	DB8.25/20	Wau 6-125	6-4½x5½	BL 724	U 4	No	Wis 8D210	2F	R	8.50	60.1	10x2⅝x¼	
93	Moreland.....RR10	1½	1195	159	Op	10000	4195	B6.50/20	DB6.50/20	Her JXC	6-3¾x4¼	BL 224	U 4	No	Tim 53200H	SF	H	5.66	35.0	7⅛x2⅝x¼	
94	.....RR12	2	1400	159	Op	12000	4585	P32x6	DP32x6	Her JXC	6-3¾x4¼	BL 224	U 4	No	Tim 54300H	SF	H	5.83	36.1	7⅛x2⅝x¼	
95	.....RR15	3	1600	159	Op	15000	5250	B8.25/20	DB8.25/20	Her JXC	6-3¾x4¼	BL 224	U 4	No	Tim 56200H	SF	H	6.17	38.2	7⅛x2⅝x¼	
96	.....B16	4	2595	184	Op	16000	5800	B8.25/20	DB8.25/20	Her WXC3	6-4¼x4½	BL 334	U 4	No	Tim 56200H	SF	R	6.17	38.0	9⅛x3½x⅛	
97	.....E18	5	2828	184	Op	18000	6460	B9.00/20	DB9.00/20	Her WXC3	6-4¼x4½	BL 334	U 4	No	Tim 58205H	SF	R	6.14	37.8	9⅛x3½x⅛	
98	.....E22	6	3405	184	Op	22000	7150	B9.75/20	DB9.75/20	Her WXC3	6-4¼x4½	BL 524	U 4	No	Tim 65720H	WF	R	7.25	44.5	9⅛x3½x⅛	
99	.....H26	6	4815	196	Op	26000	8900	B9.75/20	DB9.75/20	Her RXB	6-4½x5¼	BL 524	U 4	No	Tim 66720W	WF	R	7.59	58.9	9½x3¾x⅛	
100	Omort.....20	2	1095	131	210	10000	3725	B6.00/20	DB6.00/20	Her JXA	6-3⅜x4¼	WG T9	U 4	No	Tim 53200H	BF	H	6.20	39.4	6x2¾x⅛	
101	25	2½	2650	130	130	16000	6100	P32x6	DP32x6	Her WXB	6-3¾x4¼	Fu MGU	U 4	No	Wis 6787L	2F	R	6.41	41.6	6x3½x⅛	
102	30	3	3250	134	134	18000	6600	P34x7	DP34x7	Her WXB	6-3¾x4½	Fu MGOG	A 4	U 2	Wis 8817L	2F	R	7.93	65.0	6x3½x⅛	
103	35	3½	3850	150	150	21000	7600	P36x8	DP36x8	Her WXC	6-4x4½	Fu MGOG	A 4	U 2	Wis 1567H	2F	R	9.11	74.7	6x3½x⅛	
104	Pierce-Arrow 13S385	2-2½	2500	160	200	13000	5750	B8.25/20	DB8.25/20	Own 8	8-3½x5	Co RU48L	U 4	No	Tim 56200	SF	R	5.28	32.6	7⅝x3½x⅛	
105	.....15T298	3-3½	1950	150	200	15000	5725	B8.25/20	DB8.25/20	Her WXB	6-3¾x4½	Cla 108B	U 4	Op	Tim 56200	SF	R	6.16	40.2	7⅝x3½x⅛	
106	.....17T361	3-4	2350	150	200	17000	5725	B9.00/20	DB9.00/20	Her WXC2	6-4½x4½	Co RU48L	U 4	Op	Tim 58200	SF	R	6.83	42.2	7⅝x3½x⅛	
107	.....18W361	3½-4½	3000	150	220	18000	6660	B9.00/20	DB9.00/20	Her WXC2	6-4½x4½	Co RU48L	U 4	Op	Tim 65720	WF	R	6.8	42.	8½x3½x⅛	
108	.....19R479	3½-4½	3600	150	220	19000	7850	B9.00/20	DB9.00/20	Her YXC3	6-4½x4¾	Co TNU	U 4	Op	Tim 65720	WF	R	5.4	286.	8½x3½x⅛	
109	.....24X479	5-6	4150	150	200	24000	9250	B10.50/20	DB10.50/20	Her YXC3	6-4½x4¾	Co TNU	U 4	Op	Tim 66720	WF	R	7.6	402.	9½x3½x⅛	
110	.....28M611	6-7	5400	160	200	28000	11600	B10.50/24	DB10.50/24	Her GXA	6-4½x5¾	Own	A 4	Op	Own	WF	R	10.	525.	9½x3½x⅛	
111	Reo..(A).....BN	1600 lb.	530	130	130	5500	2805	B6.50/18	B6.50/18	Own	6-3½x5	Own	U 3	O 2	Own	B½	H	4.9	16.1	7⅞x2½x⅛	
112	.....1A, (1C†)	1-1½	575	136	160	9000	3135	B6.00/20	DB6.00/20	Own	4-3¼x4½	Own	U 4	O 2	Own	SF	H	5.8	38.4	7x2¾x⅛	
113	.....1B, (1D†)	1½-2½	595	140	164	10500	3260	B6.00/20	DB6.00/20	Own	6-3¼x5	Own	U 4	O 2	Own	SF	H	5.28	34.8	7x2¾x⅛	
114	.....2B-2D	2-3	845	142	166	12500	3865	B6.50/20	DB6.50/20	Own	6-3¾x5	Own	U 4	O 2	Own	SF	H	5.83	38.4	7x3x⅛	
115	.....2H (2J, 2K†)	2-4	1245	142	184	15000	4475	B7.00/20	DB7.00/20	Own	6-3¾x5	Own	U 4	O 2	Own	SF	H	6.6	42.9	7x1¼x3	
116	.....3H(3J,3K,3M†)	2-5	1795	170	205	17500	5125	B7.50/20	DB7.50/20	Own	6-3¾x5	Own	U 4	O 2	Own	SF	H	6.5	42.9	8¼x1¼x3	
117	.....4H,4J,4K,4M	4-6	2595	170	205	20000	6280	B9.00/20	DB9.00/20	Own	8-3⅜x5	Own	U 4	O 2	Own	SF	H	6.14	40.5	10x3x¼	
118	Schacht.....10H	1½-2½	1295	156	195	11500	4850	B6.50/20	DB6.50/20	Con 16C	6-3⅜x4⅝	BL 35	U 4	No	Tim	BF	H	5.83	31.2	6x3x¼	
119	.....15HA	2½-3½	1735	156	195	13000	5200	B8.25/20	DB8.25/20	Con 16C	6-3¾x4⅝	BL 35	U 4	No	Tim	BF	H	6.06	38.5	6x3x¼	
120	.....20HA	2½-4	2185	160	207	15300	5450	B8.25/20	DB8.25/20	Her WXC	6-4x4½	Own	U 5	No	Tim	BF	R	6.06	38.5	6x3x¼	
121	.....25HA	3-4½	2695	146	213	19500	5750	B9.00/20	DB9.00/20	Her WXC	6-4x4½	Fu 5A-38	U 5	No	Tim	BF	R	6.02	39.2	7x3x¼	
122	.....28HA	4-5½	3050	146	227	23000	6600	B9.75/20	DB9.75/20	Her WXC	6-4x4½	Fu 5A-38	U 5	No	Tim	BF	R	6.83	43.8	7x3x¼	
123	(Cont.).....30HA	4½-6	3295	146	227	23000	6800	B9.75/20	DB9.75/20	Her WXC	6-4x4½	Fu 5A-38	U 5	No	Wis	2F	R	7.14	46.4	7x3x¼	

Line Number	ENGINE DETAILS: Piston Displacement	Compression Ratio	Torque lb. ft.	N.A.C.C. Rated H.P.	Max. Brake H.P. at R.P.M. Given	Valve Arrangement	Camshaft Drive	Piston Material	MAIN BEARINGS: Number and Diameter	MAIN BEARINGS: Length	Oiling System Type	Governor Make	FUEL SYST.: Carburetors Make	FUEL SYST.: Fuel Feed	ELECTRICAL: Ignition System Make	ELECTRICAL: Generator, Starter Make	Clutch Type and Make	Radiator Make	Universals Make	FRONT AXLE: Make and Model	Steering Gear Make	BRAKES: SERVICE: Make, Location Type, Operation	BRAKES: SERVICE: Lining Area	BRAKES: SERVICE: Drum Material	BRAKES: Hand Location, Type	BODY MOUNTING DATA: Cab to Rear of Frame	BODY MOUNTING DATA: Cab to Rear Axle	BODY MOUNTING DATA: Width of Frame	SPRINGS: Front	SPRINGS: Rear	Auxiliary Type
1	525	4.8	336	48.6	111–2200	L	G	B	7–3	11½	PC	Pe	Zen	M	AL	DR	D.Fu	Yo	Blo	Shu 633-11	Ros	L4IH	556	p G	CD	96½	64	31½	41⅞x2½	54½x3	½
2	525	4.8	336	48.6	111–2200	L	G	B	7–3	11½	PC	Pe	Zen	M	DR	DR	D.Fu	Yo	Blo	Shu 610-103	Ros	W2IM	360	G	TD	119	86½	35	41½x2½	48½x3	½
3	228	4.7	142	27.3	59–2800	L	G	C	7–2½	10⅜	PC	Op	Str	M	AL	AL	P.BL	Yo	Spi	Tim 30020H	Ros	L4IH	249	G	TX	92	56	34	37x2¼	54x2½	N
4	282	5.3	176	33.7	73–2800	L	G	A	7–2½	10⅜	PC	Op	Str	M	AL	AL	P.BL	Yo	Spi	Tim 31020	Ros	L4IH	356	G	TX	92	56	34	37x2¼	54x2½	½
5	282	5.3	176	33.7	73–2800	L	G	A	7–2½	10⅜	PC	Op	Str	M	AL	AL	P.BL	Yo	Spi	Tim 31020	Ros	L4IH	356	G	TX	92	56	34	37x2¼	54x2½	½
6	339	4.7	210	38.4	76–2400	L	G	A	7–2⅝	13¼	PC	Opt	Str	M	AL	AL	P.BL	Yo	Spi	Shu 5572	Ros	L4IH	380	G	TD	108	69½	34	39½x2½	54x3	½
7	339	4.7	210	38.4	76–2400	L	G	A	7–2⅝	13¼	PC	Opt	Str	M	AL	AL	P.BL	Yo	Spi	Shu 5572	Ros	L4IHV	380	G	CD	108	69½	34	39½x2½	54x3	½
8	428	4.4	283	45.9	94–2200	L	G	A	7–3	14	PC	Ha	Str	M	AL	AL	P.BL	Yo	Spi	Shu 15582B	Ros	L4IHV	398	G	CD	142	83	34½	40x2½	54x3	½
9	428	4.4	283	45.9	94–2200	L	G	A	7–3	14	PC	Ha	Str	M	AL	AL	P.BL	Yo	Spi	Shu 15582	Ros	L4IHV	398	G	CD	142	83	34½	40x2½	54x3	½
10	428	4.4	283	45.9	94–2200	L	G	A	7–3	14	PC	Ha	Str	M	AL	AL	P.BL	Yo	Spi	Shu 15582	Ros	L4IHV	398	G	CD	142	83	34½	40x2½	54x3	½
11	501	4.9	330	48.6	110–2200	L	G	A	7–3	12½	PC	Ha	Str	M	AL	AL	P.BL	Yo	Spi	Shu 15592B	Ros	L4IHV	546	G	CD	142	83	34½	40x2½	54x3	½
12	529	4.9	350	51.3	115–2200	L	G	A	7–3	12½	PC	Ha	Str	M	AL	AL	P.BL	Yo	Spi	Shu 15592B	Ros	L4IHV	546	G	CD	142	83	34¼	40x2½	54x3	½
13	762	17.	420	57.0	125–1800	H	G	N	7–3½	17½	CC	FN	No	M	CI	LN	dp.BL	Yo	Spi	Shu 1633W	Ros	Ws4IA	560	G	CD	144	90	34	40x3	54x3	N
14	213	5.0	133	26.3	66–3400	L	C	C	4–2⅝	6¼	FP	No	Til	M	AL	AL	B-W	Mo	Spi	Own D-50	Own	B4IM	156	P	21	54 ⅞	29¼	Var	36½x1¼	51x1¼	N
15	186	4.6	124	21.	39–2400	L	G	C	3–2	6¼	FP	No	Zen	V	DR	DR	P.MM	Mo	MM	Own 104	Ros	B4IM	217	Pa	TX	66 ⅞	35⅛	32½	40x2	46x2½	¼
16	186	4.6	124	21.	39–2400	L	G	C	3–2	6¼	FP	No	Zen	V	DR	DR	P.MM	Mo	MM	Own 101	Ros	B4IM	212	P	21	93⅛	53⅛	32½	40x2	46x2½	½
17	186	4.6	124	21.	39–2400	L	G	C	3–2	6¼	FP	No	Zen	V	DR	DR	P.MM	Mo	MM	Own 101	Ros	B4IM	212	P	21	93⅛	53⅛	32½	40x2	46x2½	N
18	224	4.7	138	25.3	54–2700	L	G	A	4–2⅝	7½	PC	No	Zen	M	DR	DR	P.Ro	Mo	MM	Own 105	Ros	B4IM	287	P	21	93⅛	53⅛	32 ⅞	40x2	46x2½	½
19	224	4.7	138	25.3	54–2700	L	G	A	4–2⅝	7½	PC	No	Zen	M	DR	DR	P.Ro	Mo	MM	Own 200	Ros	B4IM	302	P	21	93⅛	53⅛	32 ⅞	40x2⅛	46x2½	½
20	224	4.7	138	25.3	54–2700	L	G	A	4–2⅝	7½	PC	No	Zen	V	DR	DR	P.Ow	Mo	MM	Own 200	Ros	B4IM	295	Pa	21	98½	55⅝	32	40x2¼	52x2¼	½
21	207	5.5	137	26.3	59–2900	H	G	C	4–2⅝	6	FP	Ha	Til	M	DR	DR	P.Ro	Mo	MM	Own 108	Ros	B4IM	271	Pa	21	93⅝	53½	32 ⅞	40x2	46x2½	½
22	223	5.4	154	28.3	63–3200	H	G	C	4–2⅝	6 ⅞	FP	Ha	Til	M	DR	DR	P.Ow	Mo	MM	Own 108	Ros	B4IM	303	Pa	21	106½	62⅝	34	40x2	54x3	½
23	279	4.6	176	31.5	67–2600	H	G	C	7–2½	13 ⅞	FP	Ha	Zen	M	DR	DR	P.Ow	Mo	MM	Own 251	Ros	B4IM	378	Pa	21	104	61½	34	42x3	54x3	½
24	279	4.6	176	31.5	67–2600	H	G	C	7–2½	13 ⅞	FP	Ha	Zen	M	DR	DR	P.Ow	Mo	MM	Own 300	Ros	B4IM	430	Pa	21	115	72½	34	42x3	56x3	½
25	279	4.6	176	31.5	67–2600	H	G	C	7–2½	13½	FP	Ha	Zen	M	DR	DR	P.Ow	Mo	MM	Own 300	Ros	B4IM	430	Pa	21	115	72½	34	42x3	56x3	½
26	312	4.0	200	28.9	59–1800	H	C	A	3–2¾	7¾	FP	HS	Zen	V	RB	DR	P.Ow	Ow	Own	Own 400	Own	BO4IM	710	Pa	21	106½	73¼	34	41½x3	56x3½	¼
27	390	3.8	240	36.1	69–1800	H	C	A	3–3	7¾	FP	HS	Zen	V	RB	DR	P.Ow	Ow	Own	Own 500	Own	BO4IM	794	Pa	21	120	81⅞	34	44x3	58x4	¼
28	525	4.5	315	48.6	98–1800	H	G	C	7–3¼	17¾	FP	Ha	Zen	M	DR	DR	P.Ro	Mo	MM	Own 503	Ros	BO4IMV	729	Pa	TD	106	72	34	48x3	56x3	N
29	648	4.4	398	60.0	114–1800	H	G	C	7–3½	17¾	FP	Ha	Zen	M	DR	DR	P.Ro	Mo	MM	Own 503	Ros	BO4IMV	729	Pa	TD	106	72	34	48x3	56x3	N
30	282	5.3	176	33.7	73–2700	L	G	A	7–2½	10¼	FP	No	Zen	M	DR	DR	P.BL	Pe	Spi	Tim 31000H	Ros	L4IH	335	a	TX	108	60	31½	38x2¼	52x2½	N
31	298	4.7	200	33.7	80–2800	L	G	C	7–3	9	CC	No	Zen	M	DR	DR	P.BL	Pe	Spi	Tim 31000H	Ros	L4IH	335	a	FD	96	60	31½	39x2¼	52x3	½
32	282	4.7	176	33.7	73–2700	L	G	A	7–2½	10¼	FP	No	Zen	M	DR	DR	P.BL	Pe	Spi	Tim 31000H	Ros	L4IH	335	a	TX	108	60	31½	38x2¼	52x2½	½
33	339	4.4	212	38.4	76–2400	L	C	A	7–2⅝	13¼	FP	No	Zen	M	DR	DR	P.BL	Pe	Spi	Tim 33000H	Ros	L4IH	335	a	FD	110	72	31½	40x2¼	52x3	½
34	282	4.7	176	33.7	73–2700	L	G	A	7–2½	10¼	FP	No	Zen	M	DR	DR	P.BL	Pe	Spi	Tim 31000H	Ros	L4IH	394	a	TX	108	60	31½	38x2¼	52x3	½
35	393	4.9	260	42.1	103–2600	L	G	C	7–3	11½	FP	No	Zen	M	DR	DR	P.BL	Pe	Spi	Tim 33000H	Ros	L4IHV	394	a	FD	120	72	31½	40x2½	52x3	½
36	393	4.9	260	42.1	103–2600	L	G	C	7–3	11½	FP	No	Zen	M	DR	DR	P.BL	Pe	Spi	Tim 35100H	Ros	L4IHV	455	a	FD	120	72	33¼	42x2½	56x3½	½
37	377	4.9	258	38.4	92–2300	H	C	A	4–2¾	11¼	FP	No	Zen	M	DR	DR	P.BL	Pe	Spi	Tim 35100H	Ros	L4IHV	455	a	FD	120	72	33¾	42x2½	56x3½	½
38	453	4.8	300	48.6	98–2200	L	G	A	7–3	14	CC	Ha	Zen	M	DR	DR	P.BL	Pe	Spi	Tim 35100H	Ros	L4IHV	602	a	FD	110	72	33¾	42x2½	56x3½	½
39	501	4.9	330	48.6	110–2200	L	G	A	7–3	12½	CC	Ha	Zen	M	DR	DR	P.BL	Pe	Spi	Tim 36020N	Ros	Ws2ImV	407	a	FD	132	84	33¾	42x3	56x4	½
40	468	4.4	322	43.3	125–2400	H	C	A	4–2⅝	10½	FP	No	Zen	M	DR	DR	P.BL	Pe	Spi	Tim 36020N	Ros	Ws2ImV	407	a	FD	132	84	33¾	42x3	56x4	½
41	572	4.3	358	48.6	114–1900	L	G	C	4–3	10 ⅞	CC	Bu	Zen	M	DR	DR	P.BL	Pe	Spi	Tim 36020N	Ros	Ws2ImV	407	a	FD	132	84	33¾	42x3	56x4	½
42	707	4.4	506	60.0	170–2000	H	C	A	7–3¼	11⅞	FP	HS	Zen	M	DR	DR	P.BL	Pe	Spi	Tim 36020N	Ros	Ws2ImV	407	a	FD	132	84	33¾	42x3	56x4	½
43	214	4.9	137	27.3	61–3000	L	C	C	7–2½	8⅛	FP	No	Str	M	DR	DR	D.BL	Mo	Spi	Tim 30000H	Ros	L4IH	308	G	TX	101	64	34	38x2¼	52x2½	N
44	248	5.	159	27.4	78–3100	L	C	C	7–2½	10¼	PC	No	Str	M	DR	DR	D.BL	Ow	Spi	Tim 31000H	Ros	L4IH	452	G	TX	126	76	34	38x2½	52x3	½
45	288	4.6	182	32.6	73–2700	L	C	C	7–2½	12⅛	PC	No	Str	M	DR	DR	D.BL	Ow	Spi	Tim 31000H	Ros	L4IH	354	G	F	166	76	34	38x2½	52x3	½
46	318	4.6	204	36.0	80–2700	L	C	C	7–2⅝	12⅛	FP	No	Str	V	DR	DR	D.BL	Ow	Spi	Tim 33020H	Ros	L4IH	648	G	TD	172	104	34	38x2½	52x3	¼
47	427	4.2	270	45.9	102–2400	H	C	C	7–2⅝	13⅛	FP	No	Str	M	DR	DR	D.BL	Ow	Spi	Tim 35020H	Ros	L4IHV	676	G	FD	170	108	34	38x2½	52x3	¼
48	672	1.5	420	57.0	125–1800	H	G	N	7–3¼	13⅛	FP	En	No	M	No	LN	D.BL	Ow	Spi	Tim 26450	Ros	Ws4IA	848	G	FD	180	130	38	44x2½	52x3	¼
49	224	4.7	145	25.3	61–2800	L	G	C	4–2⅝	8⅛	PC	No	Zen	M	AL	AL	P.BB	Pe	Spi	Tim 30000H	Ros	L4IH	287	Da	TX	110¾	67½	31⅞	38x2	52½x2½	½
50	242	5.0	160	27.3	65–2800	L	G	C	4–2⅝	8⅛	PC	No	Zen	M	AL	AL	P.BB	Pe	Spi	Tim 31000H	Ros	L4IH	271	Da	TX	143¾	79½	32	38x2	52½x2½	½
51	299	4.9	195	33.5	82–2600	L	G	C	4–2¾	10	PC	No	Zen	M	AL	AL	P.BB	Pe	Spi	Tim 31000H	Ros	L4IHV	327	Da	TX	120	78¾	32	38x2	57½x2	½
52	381	4.4	240	40.8	85–2500	L	G	C	7–2⅝	12½	CC	Ha	Zen	M	AL	AL	D.Fu	Pe	Spi	Tim 33000H	Ros	L4IHV	367	Da	FD	140¼	93	32	39x2½	60x3	½
53	354	4.3	228	36.2	86–2300	L	G	C	7–2⅝	12½	CC	Ha	Zen	M	AL	AL	D.Fu	Pe	Spi	Tim 33000H	Ros	L4IHV	458	Da	FD	144	75	32	39x2½	60x3	½
54	462	4.6	310	46.	97–2000	L	G	C	7–3	13½	PC	Wa	Zen	M	AL	AL	D.Fu	Pe	Spi	Tim 35000H	Ros	L4IHV	468	Da	FD	168	88	32½	44x3	60x3½	½
55	462	4.6	324	46.	125–2400	L	G	C	7–3	13⅛	PC	Wa	Zen	M	AL	AL	D.Fu	Ow	Spi	Tim 27450W	Ros	Ws4IA	690	Da	FD	168	81¼	34	44x3	60x3½	½
56	248	4.4	150	27.3	65–2800	L	C	A	7–2⅝	10⅛	PC	No	Str	M	DR	DR	D.BL	Ch	Spi	Tim 30000H	Ros	L4IH	275	c	TX	96	58	34	37½x2¼	49¼x2½	N
57	248	4.4	150	27.3	65–2800	L	C	A	7–2⅝	10⅛	PC	No	Str	M	DR	DR	D.BL	Ch	Spi	Tim 30000H	Ros	L4IH	275	c	TX	128	81	34	37½x2¼	50x2½	½
58	214	4.6	261	38.4	98–2400	L	G	C	7–3	12⅛	FP	Pe	Str	M	RB	NE	P.Ow	Ow	Spi	Own BC	Ros	O4IMV	610	a	FX	120	73	33⅛	43¾x3	56½x3½	N
59	315	4.6	200	33.7	72–2500	L	G	C	7–2⅝	12½	PC	No	Str	M	DR	DR	D.BL	Ch	Spi	Tim 33000H	Ros	L4IH	345	c	TX	128	81	34	37½x2¼	50½x2½	½
60	381	4.4	242	40.8	85–2500	L	G	C	7–2⅝	12½	PC	No	Str	M	DR	DR	D.BL	Ch	Spi	Tim 33000H	Ros	L4IHV	385	c	CD	128	81	34	39x2½	53x3	½
61	462	4.5	300	45.9	98–2000	L	G	A	7–3	13⅛	PC	Wa	Str	M	DR	DR	D.Fu	Ch	Spi	Tim 35000H	Ros	L4IHV	385	c	CD	128	81	34	39x2½	53x3	½
62	462	4.5	300	45.9	98–2000	L	G	A	7–3	13⅛	PC	Wa	Str	M	DR	DR	D.Fu	Ch	Spi	Tim 35000H	Ros	L4IHV	485	c	RI	128	81	34	39x2½	53x3	½
63	248	4.9	145	25.4	64–3000	L	G	C	7–2⅝	10⅜	FP	Ha	Str	M	RB	NE	P.Ow	Ow	Spi	Own BL	Own	L4IH	302	P	FX	120	72½	33 ⅞	40⅞x2½	52¾x2½	N
64	309	4.7	183	31.5	75–2500	L	G	C	7–2⅝	10⅜	FP	Ha	Str	M	RB	NE	P.Ow	Ow	Spi	Own BG	Own	O4IMV	427	a	FX	120	72½	33 ⅞	42x2½	54x3	N
65	309	4.7	183	31.5	75–2500	L	G	C	7–2⅝	10⅜	FP	Ha	Str	M	RB	NE	P.Ow	Ow	Spi	Own BF	Own	O4IMV	427	a	FX	132	84½	33 ⅞	44x2½	54x3	½
66	283	4.4	176	28.9	63–2100	L	G	C	3–3	8	PS	Ow	Str	G	RB	NE	D.Ow	Ow	Spi	Own AB	Own	O4IMV	471	a	FX	120	73	33¼	42¼x3	48x3	N
67	283	4.4	176	28.9	63–2100	L	G	C	3–3	8	PS	Ow	Str	G	RB	NE	D.Ow	Ow	Spi	Own AB	Own	O4IMV	471	a	FX	120	73	33¼	42¼x3	56½x3½	N
68	309	4.7	183	31.5	75–2500	L	G	C	7–2⅝	10⅜	FP	Ha	Str	M	RB	NE	P.Ow	Ow	Spi	Own AB	Own	O4IMV	471	a	FX	120	73	33¼	42¼x3	48x3	N
69	309	4.7	183	31.5	75–2500	L	G	C	7–2⅝	10⅜	FP	Ha	Str	M	RB	NE	P.Ow	Ow	Spi	Own AB	Own	O4IMV	471	a	FX	120	73	33¼	42¼x3	56½x3½	N
70	414	4.6	261	38.4	98–2400	L	G	C	7–3	12⅞	FP	Pe	Str	M	RB	NE	P.Ow	Ow	Spi	Own BM	Own	O4IMV	427	a	FX	120	102½	33¼	44x2½	50x2½	N
71	414	4.6	261	38.4	98–2400	L	G	C	7–3	12⅞	FP	Pe	Str	M	RB	NE	P.Ow	Ow	Spi	Own BC	Own	O4IMV	610	a	FX	120	73	33⅛	43¾x3	56½x3½	N
72	414	4.6	261	38.4	98–2400	L	G	C	7–3	12⅞	FP	Pe	Str	M	RB	NE	P.Ow	Ow	Spi	Own BC	Own	O4IMV	590	a	JX	120	73	33⅜	43¾x3	54x3	N
73	468	4.7	292	43.4	108–2400	L	G	C	7–3	12⅞	FP	Pe	Str	M	RB	NE	P.Ow	Ow	Spi	Own BX	Own	O4IMV	619	a	JX	180	120	33 ⅞	53 ⅞x3	54x3	N
74	468	4.7	292	43.4	108–2400	L	G	C	7–3	12⅞	FP	Pe	Str	M	RB	NE	P.Ow	Ow	Spi	Own BX	Own	O4IMV	619	a	FX	180	120	33 ⅞	53 ⅞x3	56½x3½	N
75	525	4.8	350	48.6	125–2300	L	G	C	4–3½	10⅞	FP	Ow	Str	M	RB	NE	P.Ow	Ow	Cle	Own AK	Own	O4IMV	618	a	FX	120	79	33¼	50x3½	59 ⅞x4	¼
76	611	5.7	398	54.2	128–2300	L	G	C	4–3½	10⅞	FP	Ow	Str	M	RB	NE	P.Ow	Ow	Cle	Own BQ	Own	O4IMV	618	a	FX	150	102	33¼	50x3½	58⅞x3½	½
77	471	4.0	320	40.0	75–1800	L	G	C	3–3	10⅜	PS	Ow	Str	G	RB	ns	P.Ow	Ow	Spi	Own AK	Own	O4IMV	561	a	JX	132	93	37½	48x3½	52x4	½
78	471	4.0	320	40.0	75–1800	L	G	C	3–3	10⅜	PS	Ow	Str	G	RB	ns	P.Ow	Ow	Spi	Own AK	Own	O4IMV	561	a	FX	132	93	37½	48x3½	56x4	½
79	611	5.7	398	54.2	128–2300	L	G	C	4–3½	10⅞	FP	Ow	Str	M	RB	NE	P.Ow	Ow	Spi	Own AK	Ros	O4IMV	561	a	FX	132	93	37½	47 ⅞x3½	58½x4	¼
80	468	4.7	292	43.4	104–2300	L	G	C	7–3	13 ⅞	FP	Ha	Str	M	RB	NE	P.Ow	Ow	Spi	Own BC	Ros	O4IMV	619	a	FX	212	138	33 ⅞	53 ⅞x3	56½x3½	N
81	471	4.0	320	40.0	75–1800	L	G	C	3–3	10⅜	PS	Ow	Str	G	RB	ns	P.Ow	Ow	Spi	Own AC	Own	OJXM	194	c	2I	156	104	37½	46x3½	52x4	½
82	471	4.0	320	40.0	75–1800	L	G	C	3–3	10⅜	PS	Ow	Str	G	RB	ns	P.Ow	Ow	Spi	Own AC	Own	OJXM	194	c	2I	156	104	37½	46x3½	52x4	½
83	471	4.0	320	40.0	75–1800	L	G	C	3–3	10⅜	PS	Ow	Str	G	RB	ns	P.Ow	Ow	Spi	Own AC	Own	OJXM	194	c	2I	156	104	37½	46x3½	52x4	½
84	611	5.7	398	54.2	128–2300	L	G	C	4–3½	10⅞	FP	Ow	Str	M	RB	NE	P.Ow	Ow	Spi	Own AK	Ros	O4IMV	755	c	2I	156	105	37½	48x3½	52x4	½
85	706	4.7	427	60.0	138–1900	L	G	S	4–3 ⅞	11⅛	PS	Ow	Str	M	RB	NE	P.Ow	Ow	Spi	Own AK	Ros	O4IMV	755	c	2I	180	108⅞	37½	46 ⅞x3½	52x4	½
86	255	5.0	170	27.3	68–2600	L	G	C	4–2⅝	7⅝	PC	No	Zen	M	NE	NE	D.Fu	Pe	Blo	Cla 212	Ros	L4IHV	377	P	TX	113	65	32	40x2¼	50x2½	½
87	255	5.4	182	27.3	90–3200	F	G	C	4–2⅝	7 ⅛	PC	No	Zen	M	NE	NE	P.BL	Pe	Blo	Shu 5532	Ros	L4IHV	580	G	TD	118	68	32	44x2½	52x3	½
88	381	4.8	240	40.8	85–2500	L	G	C	7–2⅝	12½	PC	Wa	Zen	M	NE	NE	P.BL	Pe	Blo	Shu 5532	Ros	L4IHV	662	G	TD	118	68	32	44x2½	52x3	½
89	381	4.8	240	40.8	85–2500	L	G	C	7–2⅝	12½	PC	Wa	Zen	M	NE	NE	P.BL	Pe	Blo	Shu 5532	Ros	L4IHV	662	G	TD	146½	86½	34	44x2½	52x3	½
90	358	5.2	254	38.4	110–2800	L	G	C	7–2⅞	10⅜	PC	No	Zen	M	NE	NE	P.BL	Pe	Blo	Shu 5572	Ros	L4IHV	662	G	TD	139	85	32	44x2½	54x3½	½
91	462	5.1	324	45.9	125–2600	F	G	C	7–3	13⅛	PC	No	Zen	M	NE	NE	P.BL	Pe	Blo	Shu 5572	Ros	L4IHV	770	G	TD	147	96	36	44x3	54x4	½
92	462	5.1	324	45.9	125–2600	F	G	C	7–3	13⅛	PC	No	Zen	M	NE	NE	P.BL	Pe	Blo	Shu	Ros	L6IHV	1095	G	TD	Opt	Opt	36	44x3	54x4	..
93	282	5.0	176	33.8	73–2800	L	G	C	7–2½	10⅜	PC	No	Zen	M	AL	AL	P.BL	Lo	Spi	Tim 30000H	Ros	L4IH	254	a	TD	132	78	34	40x2½	54x3	½
94	282	5.0	176	33.8	73–2800	L	G	C	7–2½	10⅜	PC	No	Zen	M	AL	AL	P.BL	Lo	Spi	Tim 31000H	Ros	L4IH	364	a	TD	132	78	34	40x2½	54x3	½
95	282	5.0	176	33.8	73–2800	L	G	C	7–2½	10⅜	PC	No	Zen	M	AL	AL	P.BL	Lo	Spi	Tim 31000H	Ros	L4IH	364	a	TD	132	78	34	40x2½	54x3	½
96	383	4.4	262	43.3	92–2400	L	G	C	7–2⅝	13¼	PC	No	Zen	M	AL	AL	P.BL	Lo	Cle	Tim 33020H	Ros	L4IH	364	a	TD	156	101	34	40x2½	54x3	½
97	383	4.4	262	43.3	92–2400	L	G	C	7–2⅝	13¼	PC	No	Zen	M	AL	AL	P.BL	Lo	Cle	Tim 33020H	Ros	L4IH	405	a	TD	156	101	34	41½x2½	54x3	½
98	383	4.4	262	43.3	92–2400	L	G	C	7–2⅝	13¼	PC	No	Zen	M	AL	AL	P.BL	Lo	Cle	Tim 35120H	Ros	L4IH	555	a	TD	156	101	34	41½x2½	54x3	½
99	501	4.9	330	48.6	110–2200	L	G	C	7–3	12½	PC	No	Zen	M	AL	AL	P.BL	Lo	Cle	Tim26450TW	Ros	W4IA	620	a	TD	168	111¼	34	42x3	56x3½	½
100	228	4.4	143	27.3	60–2400	L	G	C	7–2½	10⅛	PC	No	Til	M	AL	AL	D.Jo	Pe	Blo	Tim 30000H	Ros	L4IH	249	p	FD	81¾	51½	34	36x2¼	45x2½	½
101	298	4.7	190	33.7	66–2400	L	G	C	7–2⅝	13¼	PC	No	Zen	M	AL	AL	D.Fu	Yo	Blo	Shu 5429	Ros	L4IH	406	G	TD	84	53½	31	40x2½	54x3	..
102	298	4.7	190	33.7	66–2400	L	G	C	7–2⅝	13¼	PC	No	Zen	M	AL	AL	D.Fu	Yo	Blo	Shu 5532	Ros	L4IH	406	G	TD	88	57½	31	40x2½	54x3	..
103	339	4.7	225	38.4	73–2000	L	G	B	7–2⅝	13¼	PC	No	Zen	M	AL	AL	D.Fu	Yo	Blo	Shu 5532	Ros	L4IH	498	G	TD	108	74	31	40x2½	54x3	½
104	385	5.0	274	39.2	125–2800	L	C	A	9–2⅝	14½	CC	Ha	Str	M	DR	DR	P.Lo	Lo	Cle	Tim 14706	Ha	B4IM	399	D	TD	116¾	62½	34	38x2½	56x3	½
105	298	4.7	190	33.7	70–2600	L	G	C	7–2⅝	13¼	PC	Ha	Zen	M	DR	DR	P.Lo	Lo	Cle	Tim 14706	Ha	B4IM	399	D	TD	113½	59½	34	38x2½	56x3	½
106	361	4.7	230	40.3	77–2400	L	G	A	7–2⅝	13¼	PC	Ha	Zen	M	DR	DR	P.Lo	Lo	Cle	Tim 14706	Ha	B4IM	399	D	CD	143½	89½	34	38x2½	56x3	½
107	361	4.7	230	40.3	77–2400	L	G	A	7–3	13¼	PC	Ha	Zen	M	DR	DR	P.Lo	Lo	Cle	Tim 15735	Ha	B4IA	473	D	CD	119½	65	34	41x2½	56x3	½
108	479	4.7	318	51.3	104–2200	L	G	A	7–3	14	PC	Ha	Zen	M	DR	DR	P.Lo	Lo	Cle	Tim 15733	Ha	B4IA	473	D	CD	118¼	163¼	34	41x2½	56x3	½
109	479	4.6	318	51.3	104–2200	L	G	A	7–3	14	PC	Ha	Zen	M	DR	DR	P.Lo	Lo	Cle	Tim 26050	Ha	B4IA	473	D	CD	168¼	33¾	34	41x2½	56x3	½
110	611	4.5	410	54.1	130–2000	L	G	A	7–3½	16¾	PC	Ha	Zen	M	DR	DR	P.Lo	Lo	Spi	Tim 26050

Line Number	MAKE AND MODEL	GENERAL (See Keynote) Tonnage Rating	Chassis Price	Standard Wheelbase	Max. W. B. Furnished	Gross Vehicle Weight	Chassis Wt. (Stripped)	TIRE SIZE Front	TIRE SIZE Rear	MAJOR UNITS — ENGINE Make and Model	ENGINE No. of Cylinders Bore and Stroke	TRANSMISSION Make and Model	TRANSMISSION Location and Forward Speeds	TRANSMISSION Aux. Location and Speeds	REAR AXLE Make and Model	REAR AXLE Gear and Type	REAR AXLE Drive and Torque	REAR AXLE GEAR RATIOS In High	REAR AXLE GEAR RATIOS In Low	FRAME Side Rail Dimensions	FRAME Type
1	Schacht.....35HA	5-7	3725	146	227	24000	7400	B9.75/20	DB9.75/20	Her WXC2	6-4½x4½	Fu 5A-38	U 5	No	Own	2F	R	8.00	52.0	8½x3x¼	P
2	(Concluded)..40H	5-7	4295	154	235	25500	7600	B9.75/20	DB9.75/20	Her YXC	6-4½x4¾	Fu 5A-53	U 5	No	Own	2F	R	7.07	49.7	8½x3x¼	P
3	.....40HB	7-9	4695	154	235	29500	7750	B10.50/20	DB10.50/20	Her YXC	6-4½x4¾	Fu 5A-53	U 5	No	Wis	2F	R	7.07	49.7	8½x3x¼	P
4	.....66HA	8-11	5895	152	247	35000	9820	B10.50/24	DB10.50/24	Her RXC	6-4½x5½	Fu 5A-53	U 5	No	Wis	2F	R	7.07	49.8	8½x3x¼	P
5	.....(T) TRD	10	4150	148	174	35000	7100	B9.00/20	DB9.00/20	Her YXC	6-4½x4¾	Fu 5A-53	U 5	No	Own	2F	R	7.8	56.8	7x3½	P
6	.....(T) TRDA	12	4350	148	174	39000	7226	B9.75/20	DB9.75/20	Her YXC3	6-4½x4¾	Fu 5A-53	U 5	No	Own	2F	R	7.8	56.8	7x3½	P
7	.....(T) TRDB	15	4595	148	174	45000	7326	B9.75/20	DB9.75/20	Her RXC	6-4½x5¼	Fu 5A-53	U 5	No	Wis	2F	R	7.8	56.8	7x3½	P
8	Sterling.....FB40	1½-2	1135	142	162	11000	3450	B6.50/20	DB6.50/20	Con 25A	6-3¾x4	WG T9	U 4	No	Own	BF	H	5.66	36.2	6x2½x⅛	C
9	.....FB50	2-2½	1240	142	162	11500	3650	B7.00/20	DB7.00/20	Con 25A	6-3¾x4	WG T9	U 4	No	Own	BF	H	5.66	36.2	6x2½x⅛	C
10	.....FB60	2½-3	1590	142	162	14000	4150	B7.00/20	DB7.00/20	Wau TL	6-3½x4¾	WG T9	U 4	No	Own	BF	H	5.83	37.3	6x2½x⅛	C
11	.....FB70	2½-3	2635	174	204	17000	5755	B7.50/20	B7.50/20	Wau ML	6-4x4¾	Own UC7	U 5	No	Own	BF	R	7.4	52.7	10x3¼x2¼	L
12	.....FD80	3-4	3065	174	204	21000	6680	B8.25/20	DB8.25/20	Wau 6ML	6-4x4¾	Own UC7	U 5	Op	Own	2F	R	7.8	55.3	10x3¼x2¼	L
13	.....FB80 Spec	3½-4	3010	174	204	21000	6680	B8.25/20	B8.25/20	Wau ML	6-4x4¾	Own UC7	U 5	No	Own	BF	R	7.8	55.6	10x3¼x2¼	L
14	.....FC90	4	4105	174	204	22000	7480	B9.00/20	B9.00/20	Wau 6MK	6-4½x4¾	Own UC7	U 5	Op	Own	CD	R	8.66	61.7	10x3¼x2¼	L
15	* FD90	4	3315	174	204	22000	7480	B9.00/20	B9.00/20	Wau MK	6-4½x4¾	Own UC7	U 5	No	Own	2F	R	8.0	57.0	10x3¼x2¼	L
16	.....FD97	4-5	4355	192	222	26000	8200	P36x8	DP36x8	Wau 6SRL	6-4½x5½	Own UC2	U 4	Op	Own	w/2F	R	7.75	51.6	12x3¼x2¼	L
17	.....FC100	5-5½	4185	192	222	26000	7750	P36x8	DP36x8	Wau 6MK	6-4½x4¾	Own UC2	U 4	Op	Own	CD	R	9.3	61.2	12x3¼x2¼	L
18	* FD115	5-6	4690	192	222	32000	8750	P40x8	DP40x8	Wau 6SRL	6-4½x5½	Own UC2	U 4	Op	Own	w/2F	R	8.20	54.6	12x3¼x2¼	L
19	.....FC107	5-6	4700	192	222	27000	8200	P36x8	DP36x8	Wau 6SRL	6-4½x5½	Own UC2	U 4	Op	Own	CD	R	8.20	54.6	12x3¼x2¼	L
20	* FD140	7-8	6285	192	222	35000	10050	P40x8	DP42x9	Wau 6-125	6-4½x5½	Own UC2	U 4	Op	Own	w/2F	R	10.0	66.6	15x3¼x2¼	L
21	* FC135	7-8	4800	192	222	35000	8900	P40x8	DP40x8	Wau SRL	6-4½x5½	Own UC2	U 4	Op	Own	CD	R	9.3	62.2	15x3¼x2¼	L
22	* FC140	8-8½	5245	200	230	36000	9350	P40x8	DP40x8	Wau 6-125	6-4½x5½	Own UC2	U 4	Op	Own	CD	R	8.3	55.2	15x3¼x2¼	L
23	* FC145	8-8½	6180	200	230	37000	10100	P40x8	DP40x8	Wau AB	6-4½x5¾	Own UC8	U 4	Op	Own	CD	R	9.4	58.9	15x3¼x2¼	L
24	* FW170, FD170	9½-10½	6980	200	230	35000	10550	P40x8	DP44x10	Wau AB	6-4½x5¾	Own UC8	U 4	Op	Own	w/2F	R	10.0	62.7	15x3¼x2¼	L
25	* FC170	9½-10½	6900	200	230	40000	10550	P40x8	DP42x9	Wau RB	6-5x5¾	Own UC8	U 4	Op	Own	CD	R	9.4	58.9	15x3¼x2¼	L
26	.....FD195	12-12½	8925	200	230	39000	10750	B10.50/20	DB10.50/20	Cum H Die	6-4¼x6	BL 734	U 4	Op	Wis 1910W	2F	R	8.88	55.8	15x3¼x2¼	L
27	Stewart.....41X	¾	670	134	145	.....	2875	B6.50/18	B6.50/18	Lyc	6-3¼x4½	WG	U 4	No	Cla	S½	H	5.4	35.1	6x2¼x⅛	T
28	.....41XS	1	680	134	145	.....	2925	B6.50/18	B6.50/18	Lyc	6-3¼x4½	WG	U 4	No	Cla	S½	H	5.4	35.1	6x2¼x⅛	T
29	.....44X	1½	695	134	176	8500	3250	B6.50/20	B6.50/20	Lyc	6-3¼x4½	WG	U 4	No	Cla	SF	H	5.61	35.8	7½x2¾x⅛	T
30	.....42X	1¾	795	145	176	9000	3525	B6.50/20	B6.50/20	Lyc	6-3¼x4½	WG	U 4	No	Cla	SF	H	5.6	35.8	7½x2¾x⅛	T
31	.....43X	2	995	145	176	10800	4005	B6.50/20	DB6 50/20	Lyc	6-3⅜x4½	WG	U 4	No	Cla	SF	H	6.3	41.	7½x2¾x⅛	T
32	.....45X	2½	1295	145	190	13500	4350	B6.50/20	DB6.50/20	Lyc	6-3¾x4½	WG	U 4	No	Cla	SF	R	6.37	40.	7½x2¾x⅛	T
33	.....29XS	2½	1695	145	220	15000	5190	B7.00/20	DB7.00/20	Lyc	6-3¾x4½	BL	U 5	No	Cla	SF	R	7.16	40.	7½x2¾x⅛	T
34	.....32X	3	1990	165	220	18000	5460	B7.00/20	DB7.00/20	Lyc	6-3¾x4½	BL	U 5	No	Cla	SF	R	7.16	40.	9x2¾x⅛	T
35	58-8	3	2100	170	226	18000	6025	B7.50/20	DB7.50/20	Lyc	8-3¾x4½	Fu	U 5	No	Cla	SF	R	7.1	47.	9x2¾x⅛	T
36	.....18X	3½	2690	165	220	20000	6600	B7.50/20	DB7.50/20	Lyc	6-3⅞x5	Fu	U 5	No	Tim	WF	R	7.25	47.5	9x2¾x⅛	T
37	48-8	3½	2990	170	241	20000	6750	B8.25/20	DB8.25/20	Lyc	8-3¾x4¾	BL	U 5	No	Cla	WF	R	7.1	47.	9x2¾x⅛	T
38	.....19X	3½	3690	165	235	20000	7110	B9.00/20	DB9.00/20	Lyc	6-3⅞x5	Fu	U 4	A 3	Tim	WF	R	7.25	48.	9x2¾x⅛	T
39	38-6	3½-5	3990	170	241	23000	7600	B9.00/20	DB9.00/20	Wau	6-4⅜x5½	BL	U 5	A 3	Tim	WF	R	7.25	48.	9x2¾x⅛	T
40	38-8	3½-5	3990	170	241	23000	7600	B9.00/20	DB9.00/20	Lyc	8-3¾x4¾	BL	U 5	A 3	Tim	WF	R	7.25	48.	9x2¾x⅛	T
41	.....31X	5-6	5190	165	235	30000	9340	B9.75/20	DB9.75/20	Wau	6-4⅜x5½	BL	U 4	A 3	Tim	WF	R	8.2	148.	9½x2¾x⅛	T
42	.....27XS	7-8	6190	165	235	33000	10300	B10.50/24	DB10.50/24	Wau	6-4⅜x5½	BL	U 4	A 3	Tim	WF	R	10.1	148.	9½x2¾x⅛	T
43	Studebaker...(1)S-2	1½-2	670	130	165	9000	3110	B6.00/20	P32x6	Own	6-3¼x4½	WG T9	U 4	No	Cla B373	SF	H	5.66	36.2	7x2¾x⅛	T
44	.....S-4	1½-2½	785	130	165	10500	3445	B6.00/20	DB6.50/20	Own	6-3¼x4½	WG T9	U 4	No	Cla B412	SF	H	6.8	43.5	7x2¾x⅛	T
45	.....S-6	2-3	945	141	165	12000	4095	B6.50/20	DB6.50/20	Own	6-3¼x4½	WG T9	U 4	No	Tim 54200	SF	H	6.8	43.5	7x2¾x⅛	T
46	.....S-8	3-4	1395	141	183	16000	4875	B6.50/20	DP32x6	Own	6-3¼x4½	WG T9	U 4	A 2	Tim 58200	SF	H	7.8	75.8	8x2½x¼	T
47	Ward La Fr...25R14	2½	2800	196	208	14000	6000	B7.50/20	DB7.50/20	Wau ML	6-4x4¾	BL 324	U 4	No	Tim 54200H	SF	R	Opt	Opt	12x3x¼	B
48	.....25R16	3	2975	197	208	16000	6200	B8.25/20	DB8.25/20	Wau ML	6-4x4¾	BL 324	U 4	No	Tim 56200H	SF	R	Opt	Opt	12x3x¼	B
49	.....25R18	3-4	3275	196	208	18000	6400	B9.00/20	DB9.00/20	Wau MK	6-4½x4¾	BL 324	U 4	No	Tim 58205H	SF	R	Opt	Opt	12x3x¼	B
50	.....30R19	3-4	3675	197	226	19000	7000	B9.00/20	DB9.00/20	Wau MK	6-4½x4¾	BL 524	U 4	No	Tim 65200H	WF	R	Opt	Opt	12x3¼x⅛	B
51	320	3-4	3825	197	226	19000	7175	B9.00/20	DB9.00/20	Wau SRL	6-4⅜x5½	BL 534	U 4	No	Tim 58205H	SF	R	Opt	Opt	12x3¼x⅛	B
52	.....30R-20	3-4	4300	196	226	20000	7260	B9.00/20	DB9.00/20	Wau SRL	6-4⅜x5½	BL 534	U 4	No	Tim 65200H	WF	R	Opt	Opt	12x3¼x⅛	B
53	.....30R23	3½-5	4175	196	226	23000	7300	B9.75/20	DB9.75/20	Wau MK	6-4½x4¾	BL 524	U 4	No	Tim 65720H	WF	R	Opt	Opt	12x3¼x⅛	B
54	.....35R	4-5	4975	196	226	25000	8700	B9.75/20	DB9.75/20	Wau SRL	6-4⅜x5½	BL 534	U 4	No	Tim 65720H	WF	R	Opt	Opt	12x3¼x⅛	B
55	.....75RH	7½	6350	210	231	30000	10500	B10.50/20	DB10.50/20	Wau RB	6-5x5¾	BL 734	U 4	No	Tim 66720H	WF	R	Opt	Opt	14x3¼x¼	T
56	.....55RH	7½	5350	203	224	30000	10000	B10.50/20	DB10.50/20	Wau SRK	6-4½x5½	BL 724	U 4	No	Tim 66720H	WF	R	Opt	Opt	14x3¼x¼	T
57	.....55RWS	7½	5750	205	224	30000	10050	B10.50/20	DB10.50/20	Wau SRK	6-4½x5½	BL 724	U 4	No	Tim 66720W	WF	R	Opt	Opt	14x3¼x¼	T
58	.....50D	7½-10	5975	159	173	36000	11000	P40x8	DP40x8	Wau SRL	6-4¾x5½	BL 724	U 4	No	Tim 68702D	WF	R	Opt	Opt	14x3¼x¼	T
59	.....100RW	10	7350	210	231	36000	11500	B10.50/24	DB10.50/24	Wau RB	6-5x5¾	BL 734	U 4	No	Tim 68720W	WF	R	Opt	Opt	14x3¼x¼	T
60	.....75RWS	10	6750	211	231	30000	11300	B10.50/20	DB10.50/20	Wau RB	6-5x5¾	BL 734	U 4	No	Tim 66720W	WF	R	Opt	Opt	14x3¼x¼	T
61	White (12).....60K	1¼-1½	1850	112	112	.....	3905	B7.00/20	B7.00/20	Own 2A	6-3½x4½	Own 3BC	U 3	No	Own 4C	S½	H	5.87	22.2	5x3x⅛	C
62	701	1¼-1½	1085	132	156	.....	3970	B7.00/20	B7.00/20	Own 8A	6-3⅞x4⅝	Own 18BA	U 4	No	Own 19CA	SF	H	5.88	37.6	7x2¾x⅛	C
63	.....701A	1½	1110	132	156	.....	4000	B7.50/20	B7.50/20	Own 8A	6-3⅞x4⅝	Own 183A	U 4	No	Own 19CA	SF	H	5.88	37.6	7x2¾x⅛	C
64	161	1¼-1½	1700	138	157	.....	4420	B7.50/20	B7.50/20	Own GRCB	4-4x5¾	Own 8B	U 4	No	Own 4C	S½	H	5.73	19.5	6x2¾x⅛	C
65	702	1½-2	1185	132	156	.....	4225	B7.00/20	DB7.00/20	Own 8A	6-3⅞x4⅝	Own 18BA	U 4	No	Own 19CA	SF	H	5.88	37.6	7x2¾x⅛	C
66	.....702A	2	1222	132	156	.....	4275	B7.50/20	DB7.50/20	Own 8A	6-3⅞x4⅝	Own 18BA	U 4	No	Own 19CA	SF	H	5.88	37.6	7x2¾x⅛	C
67	162	1½-2	1900	138	157	.....	4710	B7.00/20	DB7.00/20	Own GRCB	4-4x5¾	Own 8B	U 4	No	Own 4CB	S½	H	5.73	19.5	6x2¾x⅛	C
68	611	2-2½	2450	148	196	.....	4960	B7.00/20	DB7.00/20	Own 4AB	6-3¾x4½	Own 5B	U 4	No	Own 7C	S½	H	5.67	23.4	6½x3⅛x1¼	C
69	211	2-2½	2300	148	198	.....	5170	B7.00/20	DB7.00/20	Own GRCB	4-4x5¾	Own 8B	U 4	No	Own 7C	S½	H	5.67	23.4	6½x3⅛x1¼	C
70	612	2½-3	2800	148	196	.....	5295	B7.50/20	DB7.50/20	Own 4AB	6-3¾x4½	Own 5B	U 4	No	Own 7CB	S½	H	5.67	23.4	6½x3⅛x1¼	C
71	212	2½-3	2650	148	198	.....	5500	B7.50/20	DB7.50/20	Own GRCB	4-4x5¾	Own 8B	U 4	No	Own 7CB	S½	H	5.67	23.4	6½x3⅛x1¼	C
72	620	2½-3	4350	157	195	.....	7430	B8.25/20	DB8.25/20	Own 7A	6-4⅛x5¼	Own 4B	U 4	No	Own 14C	SF	R	6.38	41.8	7½x2½x⅛	C
73	.....612K	2½-3	2950	140	180	.....	5445	B7.50/20	DB7.50/20	Own 4AB	6-3¾x4½	Own 5B	U 4	No	Own 7CB	S½	H	5.67	23.4	6½x3⅛x1¼	C
74	.....51A	2½-4	3750	170	190	.....	6438	S36x5°	S36x8°	Own GRB	4-4½x5¾	OwnGRBA	U 4	No	Own 51A	S½	R	7.14	35.6	8x3x⅛	C
75	618	3-4	3600	166	206	.....	6675	B9.00/20	DB9.00/20	Own 4AB	6-3¾x4	Own 11BA	U 5	No	Own 14CB	2F	R	8.15	61.8	8x3¼x¼	C
76	621	3-4	4650	157	195	.....	7945	B9.00/20	DB9.00/20	Own 7A	6-4⅛x5¼	Own 4B	U 4	No	Own 10C	SF	R	6.33	41.4	7½x2½x⅛	C
77	.....618K	3-4	3750	158	198	.....	6820	B9.00/20	DB9.00/20	Own 4AB	6-3¾x4½	Own 11BA	U 5	No	Own 14CB	2F	R	8.15	61.8	8x3¼x¼	C
78	.....620K	3-4	4675	168	215	.....	7825	B9.00/20	DB9.00/20	Own 7A	6-4⅛x5¼	Own 4B	U 4	No	Own 14CB	SF	R	7.32	47.9	8x3x⅛	C
79	630	3-4½	5000	168	215	.....	8500	B9.00/20	DB9.00/20	Own 7A	6-4⅛x5¼	Own 4B	U 4	No	Own 10C	SF	R	6.33	41.4	8x3x⅛	C
80	640	3-4½	6100	180	214	.....	9510	B9.00/20	DB9.00/20	Own 5AC	6-4½x5¾	Own 10B	U 4	No	Own 10C	SF	R	5.18	33.2	8½x3⅛x1¼	C
81	58	3-5	4400	124	195	.....	2797	S36x5°	DS36x5°	Own GRB	4-4½x5¼	Own 4B	U 4	No	Own 2C	2F	R	7.6	49.7	8½x3⅛x1¼	C
82	.....58-SS	5½	5300	196	196	.....	9300	B10.50/24	DB10.50/24	Own GRB	4-4½x5¾	Own 4B	U 4	No	Own 6C	2F	R	11.8	77.5	10½x3x⅛	C
83	55	5	4650	174	215	.....	8737	S36x5°	DS40x5	Own GRB	4-4½x5¾	OwnGRBA	U 4	No	Own 55	2F	R	10.1	66.1	8x18.4 lb.	I
84	631	3½-6	5750	168	215	.....	9000	B9.75/20	DB9.75/20	Own 7A	6-4⅛x5¼	Own 4B	U 4	No	Own 2C	2F	R	8.70	56.9	8x3x⅛	C
85	.....631X	7½	6100	215	215	.....	10000	B10.50/20	DB10.50/20	Own 7A	6-4⅛x5¼	Own 4B	U 4	No	Own 2C	2F	R	10.15	66.4	8½x3⅛x1¼	C
86	641	3½-6	6450	180	214	.....	10010	B9.75/20	DB9.75/20	Own 5AC	6-4½x5¾	Own 10B	U 4	No	Own 2C	2F	R	7.16	44.5	8½x3⅛x1¼	C
87	642	4-7½	6750	180	214	.....	10910	B9.75/24	DB9.75/24	Own 5AC	6-4½x5¾	Own 10B	U 4	No	Own 13C	2F	R	10.2	63.4	8½x3⅛x1¼	C
88	52	5-7½	5100	174	215	.....	9409	S36x6°	S40x12	Own GRB	4-4½x5¾	OwnGRBA	U 4	No	Own 52	2F	R	11.7	58.4	8x18.4 lb.	I
89	643	5-9	6950	180	214	.....	11210	B10.50/24	DB10.50/24	Own 5AC	6-4½x5¾	Own 10B	U 4	No	Own 13C	2F	R	10.2	63.4	8½x3⅛x1¼	C
90	691	7-9	7250	129	129	.....	12200	B10.50/24	DB10.50/24	Own 5AD	6-4½x5¾	Own 10BB	U 5	No	Own 13CB	2F	R	10.2	63.4	8½x3¼x⅝	C
91	.....630K	3-4½	5200	168	214	.....	9290	B9.00/20	DB9.00/20	Own 7A	6-4⅛x5¼	Own 4B	U 4	No	Own 10C	SF	R	6.33	41.4	8x3x⅛	C
92	.....640K	3-4½	6300	180	214	.....	10200	B9.00/20	DB9.00/20	Own 5AC	6-4½x5¾	Own 10B	U 4	No	Own 10C	SF	R	5.18	32.2	8½x3⅛x1¼	C
93	.....631K	3½-6	5950	168	215	.....	9250	B9.75/20	DB9.75/20	Own 7A	6-4⅛x5¼	Own 4B	U 4	No	Own 2C	2F	R	8.70	56.9	8x3x⅛	C
94	.....641K	3½-6	6650	180	214	.....	10260	B9.75/20	DB9.75/20	Own 5AC	6-4½x5¾	Own 10B	U 4	No	Own 2C	2F	R	7.16	44.5	8½x3⅛x1¼	C
95	Willys.....77	.....	445	100	100	.....	.....	B5.00/17	B5.00/17	Own 77	4-3¼x4½	Own 77	U 3	No	Own 77	S½	H	4.3	12.5	3¾x1¼x⅜	T
	Four-Wheel-Drive																				
96	Coleman.....E52	2½	3800	120	144	12800	7200	B9.00/24	B9.00/24	Bud K393	6-4⅛x4¾	Fu RU 16	U 4	A 2	Wis CR15	2F	H	Opt	Opt	10x2½x⅛	B
97	.....E53	3½	5300	130	180	18900	8000	B9.75/24	B9.75/24	Bud K428	6-4⅜x4¾	Fu MRU16	U 4	A 2	Wis CR26	2F	H	Opt	Opt	12x2½x⅛	B
98	.....E54	4-5	5600	130	180	20400	8800	B10. 50/24	B10.50/24	Bud L468	6-4¼x5½	Fu MRU16	U 4	A 2	Wis CR30	2F	H	Opt	Opt	12x2½x1½	B
99	.....E55	5	6150	130	180	23000	9600	B11.25/24	B11.25/24	Bud L525	6-4½x5½	Fu MRU16	U 4	A 2	Wis CR30	2F	H	Opt	Opt	12x2½x1½	B
100	.....E55S	5-6	7200	144	180	24500	10600	B11.25/24	B11.25/24	Bud L525	6-4½x5½	Fu MHU16	U 4	A 2	Wis CR122	2F	H	Opt	Opt	12x2½x1¼	B
101	.....E56	6-7½	7800	144	180	29800	11600	B10.50/24	DB10.50/24	Bud GF6	6-4⅛x6	Fu MHU	U 4	A 2	Wis CR122	2F	H	Opt	Opt	12x2½x1¼	B
102	.....E57	7½-10	9700	144	180	32000	12400	B11.25/24	DB11.25/24	Ste LT6	6-5½x6	BL 714	U 4	A 2	Wis CR122	2F	H	Opt	Opt	16x3x1¼	B
103	Corbitt (3)...10FB6	1½-2	2300	Op	Op	.....	4420	B6.50/20	DB6.50/20	Con 25A	6-3¾x4	BL 714	U 4	A 2	Tim 53200H	SF	H	6.20	Opt	8¼x3x⅛	T
104	.....9FB6	2-2½	3200	Op	Op	.....	5060	B7.00/20	DB7.00/20	Con 20C	6-3⅜x5½	BL 224	U 4	A 2	Tim 54200H	SF	H	6.80	Opt	8¼x3x⅛	T
105	.....12FB6	2½-3½	4000	Op	Op	.....	5630	B7.50/20	DB7.50/20	Con E602	6-4⅛x4½	FuL 5A38	U 5	A 2	Tim 56200H	SF	H	7.40	Opt	9x3x⅛	T
106	.....12FD6	2½-3½	4300	Op	Op	.....	5730	B7.50/20	DB7.50/20	Con E602	6-4¼x4½	FuL 5A38	U 5	A 2	Wis 4916L	2F	H	7.36	Opt	9x3x⅛	T
107	.....15FD6	3-4	5700	Op	Op	.....	8100	B8.25/20	DB8.25/20	Con 21R	6-4¾x4¾	FuL 5A53	U 5	A 2	Wis 70000L	2F	H	8.00	Opt	9x3x⅛	T
108	.....18FD6	3½-5	6300	Op	Op	.....	9200	B9.00/20	DB9.00/20	Con 22R	6-4½x5¼	FuL 5A53	U 5	A 2	Wis 1237H	2F	H	8.00	Opt	9x3x⅛	T
109	FWD.....H4	1½-2	3325	120	160	11000	5300	P34x7	P34x7	Wis 8U	4-4x5	Cot A	A 4	Op	Own H	BF	H	7.86	38.0	5½x2¼x⅛	C
110	.....H6	2-2½	3385	133	180	13000	5900	P9.00/20	P9.00/20	Wau M8	6-3¾x4¾	BL 51	U 4	No	Own H	BF	H	8.92	47.7	5½x2¼x⅛	C
111	.....HH-6	2½-3	4135	138	170	16000	6900	P9.75/20	P9.75/20	Wau MK	6-4⅛x4¾	BL 55	A 7	R 2	Own U	BF	H	6.95	84.7	5½x2¼x⅛	C
112	.....B	3	4200	124	156	15500	6460	S36x6	S36x6	Own A	4-4¾x5½	Cot DAF	A 3	Op	Own B	BF	H	8.9	35.6	5½x2¼x⅛	C
113	.....CC-6	3½-4	4985	147	179	19500	8000	B10.50/20	B10.50/20	Wau 8RS	6-4½x5½	Own U	A 5	Op	Own U	BF	H	8.9	88.6	7x3x⅛	C
114	.....CU6A	3½-4	4685	147	179	19000	7800	B10.50/20	DB10.50/20	Wau 8RS	6-4½x5½	BL 615	U 5	Op	Own U	BF	H	6.72	55.2	7x3x⅛	C
115	.....S8U	4-5	5135	147	179	22000	8300	B11.25/20	B11.25/20	Wau 8RL	6-4⅜x5½	Own U	A 5	Op	Own U	BF	H	8.9	88.6	7x3x⅛	C
116	.....S8UA	4-5	4835	147	179	21500	8100	B11.25/20	B11.25/20	Wau 8RL	6-4⅜x5½	BL 706	U 5	Op	Own M	BF	H	7.35	73	7x3x⅛	C
117	.....M5	5-7½	7400	165	195	29500	11200	B12.75/20	B12.75/20	Wau 8RK	6-4½x5½	BL 714	U 4	A 2	Wis 131W	2F	H	10.0	207	8x3x⅛	C
118	(Cont.).....MF6	5-6	5785	147	179	24500	9100	B10.50/20	DB10.50/20	Wau 8RK	6-4½x5½	Own U	A 5	Op	Own M	BF	H	7.35	73.0	8x3x⅛	C

Line Number	ENGINE DETAILS: Piston Displacement	Compression Ratio	Torque lb. ft.	N.A.C.C. Rated H.P.	Max. Brake H.P. at R.P.M. Given	Valve Arrangement	Camshaft Drive	Piston Material	MAIN BEARINGS: Number and Diameter	MAIN BEARINGS: Length	Oiling System Type	Governor Make	FUEL SYST.: Carburetors Make	FUEL SYST.: Fuel Feed	ELECTRICAL: Ignition System Make	ELECTRICAL: Generator, Starter Make	Clutch Type and Make	Radiator Make	Universals Make	FRONT AXLE: Make and Model	Steering Gear Make	BRAKES: SERVICE: Make, Location Type Operation	BRAKES: SERVICE: Lining Area	BRAKES: SERVICE: Drum Material	BRAKES: Hand Location, Type	BODY MOUNTING DATA: Cab to Rear of Frame	BODY MOUNTING DATA: Cab to Rear Axle	BODY MOUNTING DATA: Width of Frame	SPRINGS: Front	SPRINGS: Rear	Auxiliary Type
1	360	4.7	238	40.3	80–2200	L	G	C	7-2⅝	13¼	PC	Mo	Str	M	AL	AL	D.Fu	Yo	Spi	Shu	Ros	L4IHV	768	H	TD	106	Opt	31½	40x2½	50x3	½
2	428	4.4	280	45.9	93–2200	L	G	C	7-3	15	PC	Mo	Str	M	AL	AL	D.Fu	Yo	Spi	Shu	Ros	L4IHV	768	H	TD	106	Opt	31½	40x2½	50x3	½
3	428	4.4	280	45.9	93–2200	L	G	C	7-3	15	PC	Mo	Str	M	AL	AL	D.Fu	Yo	Spi	Shu	Ros	L4IHV	893	G	TD	106	Opt	31½	40x2¼	50x3	½
4	529	4.9	355	51.2	115–2200	L	G	C	7-3	15	PC	Mo	Str	M	AL	AL	D.Fu	Yo	Spi	Shu	Own	Ws4IA	847	G	TD	118	Opt	31½	42x3	60x3½	½
5	428	4.4	280	45.9	93–2200	L	G	C	7-3	15	PC	Mo	Str	M	AL	AL	D.Fu	Yo	Spi	Shu	Ros	L4IHV	893	H	TD	92¼	Opt	31½	40x2½	50x3	½
6	478	4.4	318	51.2	103–2200	L	G	C	7-3	15	PC	Mo	Str	M	AL	AL	D.Fu	Yo	Spi	Shu	Ros	L4IHV	893	H	TD	92¼	Opt	31½	40x2½	50x3	½
7	529	4.4	355	51.2	115–2200	L	G	C	7-3	15	PC	Mo	Str	M	AL	AL	D.Fu	Yo	Spi	Shu	Ros	L4IHV	893	H	TD	92¼	Opt	31½	40x2½	50x3	½
8	214	5.0	137	28.0	72–3300	L	C	A	4-2¾	6¾	CC	No	Zen	M	DR	DR	P.Lo	Pe	Spi	Tim 30000H	Ros	L4IH	269	P	TX	96	57	34	38x2¼	50x2½	N
9	214	5.0	137	28.0	72–3300	L	C	A	4-2¾	6¾	CC	No	Zen	M	DR	DR	P.Lo	Pe	Spi	Tim 30000H	Ros	L4IH	269	P	TX	96	57	34	38x2¼	50x2½	½
10	255	5.0	175	28.0	68–2600	L	G	C	4-2⅝	7⅝	CC	No	Zen	M	DR	DR	P.Lo	Pe	Spi	Tim 31000H	Ros	L4IH	282	P	TX	96	57	34	38x2¼	50x2½	½
11	358	4.4	230	38.4	80–2500	L	G	C	7-2⅝	12½	CC	Ha	Zen	M	DR	DR	D.Ow	Mo	Spi	Tim 31000H	Ros	L4IHV	330	a	CX	144	91	34	42x2½	54x3	½
12	358	4.4	230	38.4	80–2500	L	G	C	7-2⅝	12½	CC	Ha	Zen	M	DR	DR	D.Ow	Mo	Spi	Tim 33000H	Ha	L4IHV	396	a	CX	144	91	34	42x2½	54x3	½
13	358	4.4	230	38.4	80–2500	L	G	C	7-2⅝	12½	CC	Ha	Zen	M	DR	DR	D.Ow	Mo	Spi	Tim 33000H	Ha	L4IHV	392	a	CX	144	91	34	42x2½	54x3	½
14	381	4.4	240	40.8	85–2500	L	G	C	7-2⅝	12½	CC	Ha	Zen	M	DR	DR	D.Ow	Mo	Spi	Tim 33000H	Ha	O2IMV	466	s	JX	144	91	34	42x2½	54x3	½
15	381	4.4	240	40	8	85–2500	L	G	C	7-2⅝	12½	CC	Ha	Zen	M	DR	DR	D.Ow	Mo	Spi	Tim 33000H	Ha	L4IHV	397	a	CX	144	91	34	42x2½	54x3	½
16	462	4.5	300	45.9	102–2400	L	G	C	7-3	13⅛	CC	Ha	Zen	M	DR	DR	D.Ow	Mo	Spi	Tim 35000H	Ros	L4IHV	664	a	CX	172	108	34	48x3	54x3	½
17	381	4.4	240	40.8	85–2500	L	G	C	7-2⅝	12½	CC	Ha	Zen	M	DR	DR	D.Ow	Mo	Spi	Tim 35000H	Ros	O2IMV	576	a	JX	172	108	34	48x3	54x3	½
18	462	4.5	300	45.9	102–2400	L	G	C	7-3	13⅛	CC	Ha	Zen	M	DR	DR	D.Ow	Mo	Spi	Tim 35000H	Ros	L4IHV	664	a	CX	172	108	34	48x3	54x3	½
19	462	4.5	300	45.9	102–2400	L	G	C	7-3	13⅛	CC	Ha	Zen	M	DR	DR	D.Ow	Mo	Spi	Tim 35000N	Ros	O2IMV	576	a	JX	172	108	34	48x3	54x3	½
20	462	4.5	300	45.9	125–2400	L	G	C	7-3	13⅛	CC	Ha	Zen	M	DR	DR	D.Ow	Mo	Spi	Tim 26450TN	Ros	Ws4IA	690	a	CX	172	108	34	48x3	60x4	½
21	462	4.5	300	45.9	102–2400	L	G	C	7-3	13⅛	CC	Ha	Zen	M	DR	DR	D.Ow	Mo	Spi	Tim 26450N	Ros	O2IMV	500	s	JX	172	108	34	48x3	54x3	½
22	489	4.5	295	43.4	125–2400	L	G	C	4-3½	11⅜	CC	Ha	Zen	M	DR	DR	D.Ow	Mo	Spi	Tim 26450N	Ros	O2IMV	666	s	JX	168	107	34	48x3	54x3	½
23	549	4.5	330	48.6	99–2000	L	G	C	4-3½	11⅜	CC	Ha	Zen	M	DR	DR	D.Ow	Mo	Spi	Tim 26450N	Ros	O2IMV	666	s	JX	168	107	34	48x3	54x3	½
24	549	4.5	330	48.6	99–2000	L	G	C	4-3½	11⅜	CC	Ha	Zen	M	DR	DR	D.Ow	Mo	Spi	Tim 27050TW	Ros	Ws4IA	690	a	CX	163	107	34	48x3	60x4	½
25	677	4.4	440	60.0	125–2000	L	G	A	4-3½	11⅜	CC	Ha	Zen	M	DR	DR	D.Ow	Mo	Spi	Tim 27450N	Ros	O2IMV	666	s	JX	168	107	34	48x3	54x3	½
26	672	17	420	57.0	125–1800	H	G	C	7-3½	16½	CC	En	No	M	CI	LN	P.BL	Mo	Spi	Tim 27450TW	Ros	Ws4IA	718	a	CX	163	107	34	48x3	60x4	½
27	224	4.8	142	25.3	62–2800	L	G	C	4-2⅝	8¼	CC	No	Zen	P	DR	DR	P.BB	Fe	Spi	Spi	Ros	B4IM	180	a	4X	81	41¾	32½	38½x2¼	50x2½	N
28	224	4.8	142	25.3	62–2800	L	G	C	4-2⅝	8¼	CC	No	Zen	P	DR	DR	P.BB	Fe	Spi	Spi	Ros	B4IM	180	a	4X	92	51¾	32½	38½x2¼	50x2½	N
29	224	4.8	142	25.3	62–2800	L	G	C	4-2⅝	8¼	CC	No	Zen	P	DR	DR	P.BB	Fe	Spi	Spi	Ros	B4IM	226	a	TX	92	51¾	32½	38½x2¼	50x2½	N
30	224	4.8	142	25.3	62–2800	L	G	C	4-2⅝	8¼	CC	No	Zen	P	DR	DR	P.BB	Fe	Spi	Spi	Ros	B4IM	317	a	TX	92	51¾	32½	38x2½	50x2½	N
31	242	5.	162	27.3	65–2800	L	G	C	4-2⅝	8¼	CC	No	Zen	P	DR	DR	P.BB	Fe	Spi	Spi	Ros	B4IM	317	a	TX	103¼	62¾	32½	38½x2¼	50x2½	½
32	242	5.	162	27.3	65–2800	L	G	C	4-2⅝	8¼	CC	No	Zen	P	DR	DR	P.BB	Fe	Spi	Spi	Ros	B4IM	349	a	TX	104½	58½	32½	38½x2¼	50x3	½
33	299	5.0	193	33.8	85–2750	L	G	C	4-2⅝	9¼	FP	Mo	Str	P	DR	DR	P.BL	Fe	Spi	Cla	Ros	B4IM	524	a	TX	128½	58½	32½	38x2¼	50x3	½
34	299	5.0	193	33.8	85–2750	L	G	C	4-2⅝	9¼	FP	Mo	Str	P	DR	DR	P.BL	Fe	Spi	Cla	Ros	B4IM	594	a	TX	127½	79¼	32¼	38x2¼	50x3	½
35	322	4.6	224	36.2	90–2750	L	G	C	4-2¾	10	FP	Mo	Str	P	DR	DR	P.Fu	Fe	Spi	Tim	Ros	B4IM	594	a	TX	129¼	79¼	32¼	40x3	56x3	½
36	354	5.2	225	36.5	90–2750	L	G	C	4-2⅝	10	FP	Mo	Str	P	DR	DR	P.Fu	Fe	Spi	Cla	Ros	B4IM	670	a	TF	126¾	79¼	32¼	40x3	50x3	½
37	420	5.2	300	44.4	130–2800	L	G	C	5-2¾	12¾	FP	No	Str	P	DR	DR	P.BL	Fe	Spi	Cla	Ros	B4IMV	594	a	TX	128½	75¼	32¼	40x3	56x3	½
38	354	4.6	224	36.2	90–2750	L	G	C	4-2¾	10	FP	Mo	Str	P	DR	DR	D.Fu	Fe	Spi	Eat	Ros	B4IM	670	a	TX	126¾	76¼	32¼	40x3	56x3	½
39	462	4.6	300	45.9	100–2000	L	G	C	7-3	12⅞	FP	Mo	Str	P	DR	DR	P.BL	Fe	Spi	Eat	Ros	B4IMV	670	a	TX	128½	75⅝	32¼	40x3	56x3	½
40	420	5.2	300	44.4	130–2800	L	G	C	5-2¾	12¾	FP	No	Str	P	DR	DR	P.BL	Fe	Spi	Eat	Ros	B4IMV	670	a	TX	128½	75⅝	32¼	40x3	56x3	½
41	516	4.5	330	51.2	110–2000	L	G	C	7-3	12⅞	FP	Wa	Str	P	DR	DR	P.BL	Mo	Spi	Eat	Ros	B4IMV	708	a	TX	128¼	73¼	34	40x3	56x4	½
42	516	4.5	330	51.2	110–2000	L	G	C	7-3	12⅞	FP	Wa	Str	P	DR	DR	P.BL	Mo	Spi	Eat	Ros	Ws4IA	902	a	TX	128¼	73¼	34	40x3	56x4	½
43	230	4.6	154	25.4	75–3200	L	G	C	4-2½	8¼	CC	No	Str	M	DR	DR	P.Lo	Mc	Spi	Cla F212	Ros	B4IM	231	a	4I	83¼	48½	33½	36x1¾	45x2½	O
44	230	4.6	154	25.4	75–3200	L	G	C	4-2½	8¼	CC	Ha	Str	M	DR	DR	P.Lo	Mc	Spi	Cla F212	Ros	B4IMV	231	a	4I	83¼	48¼	33½	36x1¾	45x2½	½
45	230	4.6	154	25.4	75–3200	L	G	C	4-2½	8¼	CC	Ha	Str	M	DR	DR	dp. Lo	Mc	Spi	Tim 31010	Ros	B4IMV	284	D	4I	97¼	60	34	39x2	56x3	½
46	230	4.6	154	25.4	75–3200	L	G	C	4-2½	8¼	CC	Ha	Str	M	DR	DR	dp. Lo	Mc	MM	Tim 31020	Ros	B4IMV	420	a	4I	97¼	60	34	39x2½	56x3	½
47	358	4.6	228	38.4	80–2400	L	G	C	7-2⅝	12½	FP	Wa	Zen	M	DR	DR	P.BL	Pe	Spi	Tim 33000H	Ros	L4IHV	282	a	TD	144	90¾	33	40x2¼	52x3	½
48	358	4.6	228	38.4	80–2400	L	G	C	7-2⅝	12½	FP	Wa	Zen	M	DR	DR	P.BL	Pe	Spi	Tim 33000H	Ros	L4IHV	330	a	TD	144	90¾	33	40x2¼	52x3	½
49	381	4.6	242	40.8	85–2400	L	G	C	7-2⅝	12½	FP	Wa	Zen	M	DR	DR	P.BL	Pe	Spi	Tim 33000H	Ros	L4IHV	391	a	TD	144	90¾	33	40x2¼	52x3	½
50	381	4.6	242	40.8	85–2400	L	G	C	7-2⅝	12½	FP	Wa	Zen	M	DR	DR	P.BL	Pe	Spi	Tim 35000H	Ros	L4IHV	391	a	TD	168	105¼	33	40x2½	52x3	½
51	462	4.6	300	45.9	102–2400	L	G	C	7-3	13⅞	FP	Wa	Zen	M	DR	DR	P.BL	Pe	Spi	Tim 35000H	Ros	L4IHV	391	a	TD	168	105¼	33	40x2½	52x3	½
52	462	4.6	300	45.9	102–2400	L	G	C	7-3	13⅞	FP	Wa	Zen	M	DR	DR	P.BL	Pe	Spi	Tim 35000H	Ros	L4IHV	391	a	TD	168	105¼	33	40x2½	52x3	½
53	381	4.6	242	40.8	85–2500	L	G	C	7-2⅝	12½	FP	Wa	Zen	M	DR	DR	P.BL	Pe	Spi	Tim 35000H	Ros	L4IHV	460	a	TD	168	105¼	33	40x2½	52x3	½
54	462	4.6	300	45.9	102–2200	L	G	C	7-3	13½	FP	Wa	Zen	M	DR	DR	P.BL	Pe	Spi	Tim 35000H	Ros	L4IHV	460	a	TD	168	105¼	33	40x2½	52x3½	½
55	677	5.5	465	60.	145–2000	L	G	C	4-3½	11¼	FP	Wa	Zen	M	DR	DR	dp. BL	Pe	Spi	Tim27452H	Ros	L4IHV	560	a	TD	192	117½	33	42x3	56x3½	½
56	517	4.6	330	51.3	110–2300	L	G	C	7-3	13⅞	FP	Wa	Zen	M	DR	DR	P.BL	Pe	Spi	Tim 35100H	Ros	L4IHV	560	a	TD	192	117½	33	40x3	56x3½	½
57	517	4.6	330	51.3	110–2300	L	G	C	7-3	13⅞	FP	Wa	Zen	M	DR	DR	dp. BL	Pe	Spi	Tim35100TW	Ros	Ws4IA	619	a	TD	192	117½	33	40x3	56x3½	½
58	462	4.6	300	45.9	102–2400	L	G	C	7-3	13⅞	FP	Wa	Zen	M	DR	DR	P.BL	Pe	Spi	Tim 16302	Ros	T2IMV	470	a	TD	124	88	37	44x3	56x3½	½
59	677	5.5	465	60.	145–2000	L	G	C	4-3½	11¼	FP	Wa	Zen	M	DR	DR	dp. BL	Pe	Spi	Tim27452TW	Ros	Ws4IA	746	a	TD	192	117½	33	42x3	56x4	½
60	677	5.5	465	60.	145–2000	L	G	C	4-3½	11¼	FP	Wa	Zen	M	DR	DR	P.BL	Pe	Spi	Tim27452TW	Ros	Ws4IA	746	a	TD	192	117½	33	42x3	56x4	½
61	260	4.8	150	29.4	54–2100	L	C	S	7-2⅝	10¼	FP	No	Zen	V	DR	LN	P.Ow	Ow	Spi	Own 4D	Ha	L4IH	276	a	TX	.....	.....	34½	39x2¼	50x2½	½
62	240	4.6	150	26.3	*68–2800	L	G	C	4-2½	8¼	FP	Mo	Str	M	DR	DR	P.Lo	Ow	Spi	Own 4D	Ros	L4IHV	276	a	TX	98	60	34	39x2¼	50x2½	½
63	240	4.6	150	26.3	*68–2800	L	G	C	4-2½	8¼	FP	Mo	Str	M	DR	DR	P.Lo	Ow	Spi	Own 4D	Ros	L4IHV	276	a	TX	98	60	34	39x2¼	50x2½	½
64	289	4.3	170	25.6	45–1800	L	G	C	3-2¼	11¾	FP	Ow	Zen	V	DR	DR	P.Ow	Ow	MM	Own 4D	Ha	L4IH	276	a	TX	112	58¼	34½	39x2¼	50x2½	½
65	240	4.6	150	26.3	*68–2800	L	G	C	4-2½	8¼	FP	Mo	Str	M	DR	DR	P.Lo	Ow	Spi	Own 4D	Ros	L4IHV	276	a	TX	98	60	34	39x2¼	50x2½	½
66	240	4.6	150	26.3	*68–2800	L	G	C	4-2½	8¼	FP	Mo	Str	M	DR	DR	P.Lo	Ow	Spi	Own 4D	Ros	L4IHV	276	a	TX	98	60	34	39x2¼	50x2½	½
67	289	4.3	170	25.6	45–1800	L	G	C	3-2¼	11¾	FP	Ow	Zen	V	DR	DR	P.Ow	Ow	MM	Own 4D	Ha	L4IH	276	a	TX	112	58¼	34½	39x2¼	50x2½	N
68	299	5.5	202	33.7	77–2400	L	G	C	7-2⅝	10¼	FP	Ha	Zen	V	DR	DR	P.Ow	Ow	Spi	Own 7D	Ha	L4IH	343	a	TX	115¼	68¼	34½	41x2¼	54x3	N
69	289	4.3	170	25.6	45–1800	L	G	C	3-2¼	11¾	FP	Ow	Zen	V	DR	DR	P.Ow	Ow	Spi	Own 7D	Ha	L4IH	343	a	TX	115¼	68¼	34½	41x2¼	54x3	N
70	299	5.5	202	33.7	77–2400	L	G	C	7-2⅝	10¼	FP	Ha	Zen	V	DR	DR	P.Ow	Ow	Spi	Own 7D	Ha	L4IH	343	a	CX	115¼	68¼	34½	41x2½	54x3	N
71	289	4.3	170	25.6	45–1800	L	G	C	3-2¼	11¾	FP	Ow	Zen	V	DR	DR	P.Ow	Ow	Spi	Own 7D	Ha	L4IH	343	a	TX	115¼	68¼	34½	41x2½	54x3	N
72	434	4.9	275	42.08	105–2100	H	C	S	7-2¾	13½	FP	Ow	Zen	V	DR	DR	P.Ow	Ow	Spi	Own 11D	Ros	L04IHV	414	a	CI	107½	67½	34	41x2½	54x3	N
73	299	5.5	202	33.7	77–2400	L	G	C	7-2⅝	10¼	FP	Ha	Zen	V	DR	DR	P.Ow	Ow	Spi	Own 7D	Ha	L4IH	343	a	TX	123¾	76¾	34	41x2¼	54x3	N
74	326	4.3	207	28.9	54–1600	L	G	C	3-2¼	11¾	FP	Ow	Zen	V	EI	ns	P.Ow	Ow	Spi	Own 51A	Own	O2IM	335	a	CX	146	84¾	34	40¼x2½	54¼x3	N
75	299	5.5	202	33.7	77–2400	L	G	C	7-2⅝	10¼	FP	Ha	Zen	V	DR	DR	P.Ow	Ow	Spi	Own 11DC	Ros	LO4IHV	414	a	2I	140¼	84¼	34	41x2½	54x3	N
76	434	4.9	275	42.08	105–2100	H	C	S	7-2¾	13½	FP	Ow	Zen	M	DR	DR	P.Ow	Ow	Spi	Own 11D	Ros	LO4IHV	484	a	CI	107½	67½	34	41x2½	54x3½	N
77	299	5.5	202	33.7	77–2400	L	G	C	7-2⅝	10¼	FP	Ha	Zen	V	DR	DR	P.Ow	Ow	Spi	Own 11DC	Ros	LO4IHV	414	a	2I	150¾	74¾	34	41x2½	54x3	N
78	434	4.9	275	42.0	105–2100	H	C	S	7-2¾	13½	FP	Ow	Zen	M	DR	DR	P.Ow	Ow	Spi	Own 9D	Ros	O4IHV	553	a	CI	160	100	34¼	42x3	56x3½	½
79	434	4.9	275	42.08	105–2100	H	C	S	7-2¾	13½	FP	Ow	Zen	M	DR	DR	P.Ow	Ow	Spi	Own 6D	Ros	O4IHV	553	a	CI	144¼	84¼	34¼	42x3	56x3½	½
80	580	4.6	385	51.3	130–2100	H	C	S	7-3	15¼	FP	Ow	Zen	E	LN	LN	P.Ow	Ow	Spi	Own 6D	Ros	O4IA	553	a	CI	156¾	91¾	34¼	42x3	56x3½	½
81	326	4.3	207	28.9	54–1600	L	G	C	3-2¼	11¾	FP	Ow	Zen	V	EI	ns	P.Ow	Ow	Spi	Own 2D	Own	OPXM	224	a	2I	148½	93½	34½	40¼x3	56x3½	½
82	326	4.3	207	28.9	54–1800	L	G	C	3-2¼	11¾	FP	Ow	Zen	V	LN	LN	P.Ow	Ow	Spi	Own 9D	Ros	OPXM	224	a	2I	176	120	38¼	42x3	57x5	N
83	326	4.3	207	28.9	54–1600	L	G	C	3-2¼	11¾	FP	Ow	Zen	V	EI	ns	P.Ow	Ow	Spi	Own 55	Own	OPXM	224	a	2I	167½	107½	42½	44x3	51¼x5	N
84	434	4.9	275	42.08	105–2100	H	C	S	7-2¾	13½	FP	Ow	Zen	M	DR	DR	P.Ow	Ow	Spi	Own 9D	Ros	O4IA	595	a	CI	144¼	84¼	34¼	42x3	56x3½	½
85	434	4.9	275	42.08	105–2100	H	C	S	7-2¾	13½	FP	Ow	Zen	M	DR	DR	P.Ow	Ow	Spi	Own 9D	Ros	O4IA	595	a	2I	215	131½	34¼	42x3	56x3½	½
86	580	4.6	385	51.3	130–2100	H	C	S	7-3	15¼	FP	Ow	Zen	E	LN	LN	P.Ow	Ow	Spi	Own 9D	Ros	O4IA	595	a	CI	156¾	91¾	34¼	42x3	56x3½	½
87	580	4.6	385	51.3	130–2100	H	C	S	7-3	15¼	FP	Ow	Zen	E	LN	LN	P.Ow	Ow	Spi	Own 9D	Ros	O4IA	623	a	CI	156¾	91¾	34¼	42x3	51¼x5	N
88	326	4.3	207	28.	54–1800	L	G	C	3-2¼	11¾	FP	Ow	Zen	V	EI	ns	P.Ow	Ow	Spi	Own 52	Own	OPXM	224	a	2I	167¾	107½	42½	44x3	51¼x5	N
89	580	4.6	385	51.3	130–2100	H	C	S	7-3	15¼	FP	Ow	Zen	E	LN	LN	P.Ow	Ow	Spi	Own 9D	Ros	O4IA	623	a	CI	156¾	91¾	34¼	42x3	51¼x5	N
90	580	4.6	385	51.3	130–2300	H	C	S	7-3	15¼	FP	Ow	Zen	M	DR	LN	P.Ow	Ow	Spi	Own 5D	Ros	O4IA	623	a	TD	100	65	36	44x3	55¾x5	N
91	434	4.9	275	42.0	105–2100	H	C	S	7-2¾	13½	FP	Ow	Zen	M	DR	DR	P.Ow	Ow	Spi	Own 9D	Ros	O4IHV	553	a	CI	160	100	34¼	42x3	56x3½	½
92	580	4.6	385	51.3	130–2100	H	C	S	7-3	15¼	FP	Ow	Zen	E	LN	LN	P.Ow	Ow	Spi	Own 9D	Ros	O4IA	553	a	CI	172	107	34¼	42x3	56x3½	½
93	434	4.9	275	42.0	105–2100	H	C	S	7-2¾	13½	FP	Ow	Zen	M	DR	DR	P.Ow	Ow	Spi	Own 9D	Ros	O4IA	595	a	CI	160	100	34¼	42x3	56x3½	½
94	580	4.6	385	51.3	130–2100	H	C	S	7-3	15¼	FP	Ow	Zen	E	LN	LN	P.Ow	Ow	Spi	Own 9D	Ros	O4IA	595	a	CI	172	107	34¼	42x3	56x3½	½
95	134	5.1	100	15.6	48–3200	L	C	C	3-2	5¼	CC	No	Til	M	AL	AL	P.Ow	Fe	.....	Own 77	....	B4IM	134	P	4I	.....	.....	.....	30x1¼	46x1¼	N
96	393	4.9	260	42.0	103–2600	L	G	C	7-3	11½	FP	Ha	Zen	P	DR	DR	D.Fu	Pe	Spi	Wis CF15	Ros	W2/4IM	476	p	TD	108	78	30	48x3	48x3	C
97	428	4.7	280	45.9	107–2600	L	G	C	7-3	11½	FP	Ha	Zen	P	DR	DR	D.Fu	Pe	Spi	Wis CF25	Ros	W2/4IM	476	p	TD	144	89	30	48x3	48x3	C
98	468	4.8	295	43.4	108–2200	L	G	C	7-3	11½	FP	Ha	Zen	P	DR	DR	D.Fu	Pe	Spi	Wis CF30	Ros	W2/4IM	476	p	TD	144	89	30	48x3	48x3	C
99	525	4.9	336	48.2	114–2200	L	G	C	7-3	11½	FP	Ha	Zen	P	DR	DR	D.Fu	Pe	Spi	Wis CF30	Ros	W2/4IM	476	p	TD	144	89	30	48x3	48x3	C
100	525	4.9	336	48.2	114–2200	L	G	C	7-3	11½	FP	Ha	Zen	P	DR	DR	D.Fu	Pe	Spi	Wis CF122	Ros	W2/4IM	530	G	TD	168	105	30	48x3½	52x3½	C
101	638	4.3	410	54.1	126–1850	L	G	C	4-3	10¼	FP	Bu	Str	P	DR	DR	D.Fu	Pe	Spi	Wis CF122	Ros	W2/4IM	530	G	TD	168	105	30	48x3½	52x3½	C
102	779	4.3	475	66.1	170–1800	L	G	A	7-3	13½	FP	St	Zen	P	NE	NE	dp.BL	Pe	Spi	Wis CF122	Ros	O2/4IA	530	G	TD	Opt	105	30	48x3½	52x3½	C
103	214	4.9	142	27.3	72–3200	L	C	A	4-2⅝	6¾	FP	Opt	Zen	M	DR	DR	P.BL	Pe	Spi	Wis F30B-1	Ros	L4IH	327	a	TX	Opt	Opt	34	40x2½	50x2½	½
104	248	5.0	160	27.3	78–3200	L	C	A	7-2⅜	10¼	FP	Opt	Zen	M	DR	DR	P.BL	Pe	Spi	Wis F54B	Ros	L4IH	327	a	TX	Opt	Opt	34	40x2½	54x3	½
105	360	4.4	240	40.8	90–2500	L	C	C	7-2⅜	11¼	FP	Opt	Zen	M	DR	DR	P.Li	Pe	Spi	Wis F56B	Ros	L4IH	345	a	TX	Opt	Opt	34	40x2½	54x3	½
106	360	4.4	240	40.8	90–2500	L	C	C	7-2⅜	11¼	FP	Opt	Zen	M	DR	DR	P.Li	Pe	Spi	Wis F-75AB	Ros	L4IH	345	a	TX	Opt	Opt	34	40x2½	54x3	½
107	428	4.6	308	45.9	118–2600	H	C	A	7-2¾	13	FP	Opt	Zen	M	DR	DR	P.Li	Pe	Spi	Wis F211	Ros	L4IHV	660	a	TD	Opt	Opt	34	40x2½	54x3	½
108	500	4.5	340	48.6	138–2500	H	C	A	7-2¾	13¼	FP	Opt	Zen	M	DR	DR	P.Li	Pe	Spi	Wis F311	Ros	L04IHV	768	a	TD	Opt	Opt	34	46x3	54x3	½
109	251	4.5	160	25.6	50–2000	H	G	C	3-2¼ r	8	PC	No	Zen	V	AL	AL	D.DG	Pe	Blo	Own H	Ros	OT/4XM	238	G	2I	112	81	36	42¾x2½	52¾x2½	½
110	315	4.5	200	33.7	72–2500	L	G	C	7-2⅝	12¾	PC	Wa	Zen	V	NE	NE	D.BL	Pe	Blo	Own U	Ros	OT/4XM	238	G	2I	115½	81½	36	42¾x2½	52¾x2½

Line Number	MAKE AND MODEL	Wheels Driven—6-Wheelers	GENERAL (See Keynote) Tonnage Rating	Chassis Price	Standard Wheelbase	Max. W. B. Furnished	Gross Vehicle Weight	Chassis Wt. (Stripped)	TIRE SIZE Front	TIRE SIZE Rear	MAJOR UNITS ENGINE Make and Model	ENGINE No. of Cylinders Bore and Stroke	TRANSMISSION Make and Model	TRANSMISSION Location and Forward Speeds	TRANSMISSION Aux. Location and Speeds	REAR AXLE Make and Model	REAR AXLE Gear and Type	REAR AXLE Drive and Torque	REAR AXLE GEAR RATIOS In High	REAR AXLE GEAR RATIOS In Low	FRAME Side Rail Dimensions	FRAME Type
1	F. W. D. (Con.) LBU	5–6	4800	171	Op	23500	9000	B9.00/20	DB9.00/20	Wau 8RS	6-4½x5½	BL 55	U 4	Op	Own U	D	H	7.35	39.5	7x3x⅜	C
2	M7	7½–10	8500	165	195	37000	12400	P40x10	DP40x10	Wau RB	6–5x5¾	BL 714	U 4	A 2	Wis 131W	2F	H	8.36	173.	10x3x⅜	C
3	(T)60-T	20–25	6300	134	Op	60000	10000	B10.50/20	DB10.50/20	Wau 125	6-4½x5½	Own U	A 5	Op	Own M	BF	H	7.35	73	7x3x⅜	C
4	(T)72-T	25–30	7000	120	Op	72000	10450	B9.75/20	DB9.75/20	Wau 125	6-4½x5½	BL 724	U 4	No	Wis 1237	2F	H	6.7	47.4	8x3x¼	C
5	Ind. 12X4	1½	2650	141	...	10000	4350	B6.50/20	DB6.50/20	Her JXC	6-3¾x4¼	BL	U 4	A 2	Tim 53200H	SF	H	5.14	54.0	7½x2½x⅜	C
6	14X4	2	3950	141	...	14000	5900	B7.50/20	DB7.50/20	Her WXB	6-3¾x4½	BL	U 4	U 2	Wis	SF	H	5.40	50.0	7½x2½x⅜	C
7	16X4	3	4850	156	...	16000	7500	B8.25/20	DB8.25/20	Her WXC2	6-4½x4½	BL	U 4	U 2	Wis	2F	H	6.06	89.0	8x3x¼	C
8	18X4	3½	5850	160	...	21000	9000	B9.00/20	DB9.00/20	Her YXC	6-4½x4¾	BL	U 4	A 2	Wis	2F	H	7.83	110.	8½x3x⅜	C
9	18x4A	3½	5450	160	224	21000	8700	D9.00/20	D9.00/20	Her YXC3	6-4½x4¾	BL	U 4	A 2	Tim	SF	H	6.14	38.6	8½x3x¼	C
10	20X4	4½	7200	188	...	24000	10600	B9.75/20	DB9.75/20	Her HXB	6-5x6	BL	U 4	A 2	Wis	2F	H	8.00	128.	9x3x¼	C
11	22X4	5	10000	200	...	31000	14000	B10.50/20	DB10.50/20	Her HXC	6-5¼x6	BL	U 4	A 2	Wis	2F	H	9.11	86.0	8¼x3⅜x½	C
12	Mar.-Herr. A10	1½–2	2350	135	155	.....	4650	B6.50/20	DB6.50/20	Her JXA	6-3¾x4¼	WG T9	U 5	A 2	Own-Tim	BF	H	6.60	82.0	7¼x2½x⅜	C
13	A20	2½–3	3250	135	155	.....	5150	B7.50/20	DB7.50/20	Her JXC	6-3¾x4¾	Cla R103	U 5	A 2	Own-Tim	BF	H	5.83	80.0	7¼x2½x⅜	C
14	A30	3½–4	4300	155	167	.....	7000	B8.25/20	DB8.25/20	Her WXC	6-4x4½	Fu 5A380	U 5	A 2	Own-Tim	BF	H	6.17	116.	9½x3x⅜	C
15	A40	4–4½	4800	155	167	.....	7500	B9.00/20	DB9.00/20	Her WXC3	6-4¼x4½	Fu 5A380	U 5	A 2	Own-Tim	BF	H	7.80	133.	9½x3x⅜	C
16	A50	4–4½	5700	155	167	.....	8150	B9.00/20	DB9.00/20	Her WXC3	6-4¼x4½	Fu 5A380	U 5	A 2	Own-Wis	2F	H	8.0	136.	9½x3x⅜	P
17	TH300	4½	6150	163	193	.....	8985	B9.75/20	DB9.75/20	Her YXC	6-4½x4¾	Fu 5A380	U 5	A 2	Own-Wis	2F	H	8.0	143.	8½x3x⅜	P
18	TH310	5–5½	7150	163	193	.....	9620	B9.75/20	DB9.75/20	Her YXC3	6-4½x4¾	Fu 5A530	U 5	A 2	Own-Wis	2F	H	8.0	143.	8½x3x⅜	P
19	TH310A	6	8050	163	193	.....	10120	B9.75/22	DB9.75/22	Her RXC	6-4½x5¼	Fu 5A530	U 5	A	Own-Wis	2F	H	7.79	140.	8½x3x⅜	P
20	(13) TH315	7	9350	198	216	.....	10950	B10.50/20	DB10.50/20	Her HXB	6-5x6	BL 724	U 4	A 3	Own-Wis	2F	H	7.79	140.	8½x3x⅜	P
21	(13) TH320	8–9	11500	198	228	.....	14200	B10.50/24	DB10.50/24	Her HXC	6-5¼x6	BL 724	U 4	A 3	Own-Wis	2F	H	8.05	166.	10x3x¾	P
22	Oshkosh. JSW	1½–2	2650	123	Op	10660	4880	B7.00/20	DB7.00/20	Her WXC	6-4x4½	BL 224	U 4	No	Own JSB	SF	H	6.19	40.1	6x3¼x¼	Tf
23	JSB	1½–2	2490	149	Op	10750	4760	B7.00/20	DB7.00/20	Her JXC	6-3¾x4¼	BL 51-4	U 4	No	Own JSB	SF	H	6.19	40.1	6x3¼x¼	Tf
24	LB	2–2½	4275	146	165	13900	6700	B9.00/20	B9.00/20	Her JXC	6-3¾x4¼	BL 51-4	U 4	No	Own LB	2F	H	7.3	39.0	7x3x¼	T
25	LC	2½–3	4575	146	165	15150	6950	B9.00/20	B9.00/20	Her WXC	6-4x4½	Fu 5A380	U 5	No	Own LC	2F	H	7.3	53.1	7x3x¼	T
26	B3S	3½–4	4960	146	165	19475	8175	B10.50/20	B10.50/20	Her WXC3	6-4¼x4½	Fu 5A380	U 5	A 2	Own B3S	SF	H	6.10	86.2	7x3x½	L
27	B3D	3½x4	5390	146	165	19700	8400	B10.50/20	B10.50/20	Her WXB3	6-4¼x4½	Fu 5A380	U 5	A 2	Own B3D	2F	H	7.00	98.0	7x3x½	L
28	C3S	4–5	5150	148	165	21850	8350	B11.25/20	B11.25/20	Her YXC2	6-4½x4¾	Fu 5A530	U 5	A 2	Own C3S	SF	H	6.10	86.8	7x3x½	L
29	C3D	4–5	5795	146	165	22200	8700	B11.25/20	B11.25/20	Her YXC2	6-4½x4¾	Fu 5A530	U 5	A 2	Own C3D	2F	H	6.40	90.2	7x3x½	L
30	FC	5	5990	146	165	22725	9225	B11.25/20	B11.25/20	Her RXB	6-4½x5¼	Fu 5A530	U 5	No	Own FC	2F	H	7.60	67.6	7x3x½	L
31	FB	5–6	6350	146	165	25000	9500	B11.25/20	B11.25/20	Her RXC	6-4¾x5¼	Fu 5A530	U 5	A 2	Own FB	2F	H	7.60	106.	7x3x½	L
32	FD	6–7½	7350	146	165	30000	11500	B10.50/20	DB10.50/20	Her RXC	6-4¾x5¼	Fu 5A530	U 5	A 2	Own FD	2F	H	7.20	101.	8x3x½	L
33	BG3	7½–10	8500	165	175	37000	13200	P40x10	DP40x10	Her GXB	6-5x5¾	BL 734	U 4	A 3	Own BG3	2F	H	6.20	101.	10x3¼x⅛	L
34	GD	10	9800	165	175	38000	14200	B13.50/20	B13.50/20	Her HXD	6-5¼x6	BL 734	U 4	A 3	Own GD	2F	H	6.10	99.3	10x3¼x½	L
35	Walter. FN	2½–3½	4500	120	144	16000	6500	B9.00/20	B9.00/20	Own 6MK	6-4¼x4¾	Own FN	U 5	No	Own FN	2D	H	7.0	70.0	7x2¾x¼	P
36	FM	3½–5	5500	120	144	20000	7500	B9.00/20	DB9.00/20	Own 6SRL	6-4¾x5½	Own FM	U 5	No	Own FM	2D	H	6.0	60.0	12x2½x¼	P
37	FKD	4–6	6300	118	136	24000	8500	B9.00/24	DB9.00/24	Own 6SRL	6-4¾x5½	Own FK	U 5	No	Own FK	2D	H	8.5	85.0	11x3x¼	P
38	FCS	5–7	7200	136	160	27000	9500	B9.75/24	DB9.75/24	Own 6SRK	6-4¾x5½	Own FK	U 5	No	Own FH	2D	H	8.5	85.0	13x3x¼	P
39	FBS	5–7	7900	136	160	27000	9500	B9.75/24	DB9.75/24	Own 6RB	6-5x5¾	Own FH	U 5	No	Own FH	2D	H	8.5	85.0	13x3x¼	P
40	FBRS	7–9	8300	136	160	32000	10500	B10.50/24	DB10.50/24	Own 6RB	6-5x5¾	Own FH	U 5	No	Own FHR	2D	H	8.5	85.0	13x3x¼	P
	Six-Wheelers																					
41	B'kway 180SBT	2C 5–7½	4200	212	224	28000	9795	B8.25/20	BD8.25/20	Con 32B	6-4¼x4½	Fu 5A38	U 5	Op	Tim SBT-251	SF	T	6.14	48.5	8¼x3x¼	B
42	Corbitt. 16SFD	6 2–3	5500	Op	Op	.....	5110	B6.50/20	DB6.50/20	Con E602	6-4½x4½	Fu 5A38	U 5	A 2	Tim SD75H	2F	R	7.36	Opt	7x3¼x¼	T
43	(3). 16SFD8	6 2¼–4	5900	Op	Op	.....	7040	B7.50/20	DB7.50/20	Lyc AEF	8-3¾x4¾	Fu 5A53	U 5	A 2	Tim SD75W	2F	R	7.36	Opt	8x3½x¼	T
44	20SW6	4R 3–5	5720	Op	Op	.....	9000	B7.50/20	DB7.50/20	Con 20R	6-4¼x4¾	BL 515	U 5	No	Tim SW151TW	w/2F	R	Opt	Opt	8x3½x¼	T
45	28SW6	4R 5–7½	6380	Op	Op	.....	10000	P34x7	DP34x7	Con 21R	6-4¾x4¾	BL 607	A 7	No	Tim SW251TW	w/2F	R	Opt	Opt	8x3x⅜	C
46	28SFD6	6 5–7½	8900	Op	Op	.....	11700	B8.25/20	DB8.25/20	Con 22R	6-4½x5¼	Fu 5A53	U 5	A 2	Tim SD251W	2F	R	8.44	Opt	9x3x½	T
47	36SW6	4R 7½–10	8800	Op	Op	.....	11500	P36x8	DP36x8	Con 21R	6-4¾x4¾	BL 607	A 7	No	Tim SW310W	w/2F	R	Opt	Opt	10½x3x⅜	T
48	36SFD6	6 7½–10	12300	Op	Op	.....	14600	B9.00/22	DB9.00/22	Her HXB	6-5x6	BL 734	U 4	A 3	Tim SD320W	2F	R	8.15	Opt	10½x3x⅜	T
49	40SW6	4R 10–15	11000	Op	Op	.....	13000	P38x9	DP38x9	Con 16H	6-4¼x5¾	BL 707	A 7	No	Tim SW420W	w/2F	R	Opt	Opt	10½x3x⅜	T
50	45SFD6	6 10–15	16900	Op	Op	.....	15400	B9.75/22	DB9.75/22	Her HXC	6-5¼x6	BL 734	U 4	A 3	Tim SD420W	2F	R	8.15	Opt	10½x3x⅜	T
51	Day Elder. 150	3	1645	159	189	15000	5400	B6.50/20	DB6.50/20	Her JXB	6-3¾x4¼	WG T9	U 4	No	Tim SBT75	BF	H	5.66	36.2	7x3¼x¼	C
52	285	4R 8	5295	205	234	29500	12000	B8.25/20	DB8.25/20	Her RXC	6-4¾x5¼	BL 534	U 4	No	Ti SWD210H	WF	R	7.50	47.6	10x3¼x⅜	C
53	345	4R 10	6395	205	234	34500	12500	B9.00/20	DB9.00/20	Her RXC	6-4¾x5¼	BL 534	U 4	No	TiSWD310W	WF	R	8.50	54.0	10x3¼x⅜	C
54	402	4R 12	7495	205	234	40200	14200	B9.75/20	DB9.75/20	Her RXC	6-4¾x5¼	BL 725	U 5	No	TiSWD410W	WF	R	9.0	63.6	10x3¼x⅜	C
55	Diamond T. 801	4R 4	4140	189	219	21000	8500	P36x8	P36x8	Her YXC	6-4¾x4¾	BL 55	A 7	No	Own	WF	R	Opt	Opt	9x3½x¼	P
56	1100	4R 6	5600	189	219	28000	11000	P34x7	DP34x7	Her RXB	6-4¾x5¼	BL 60	A 7	No	Tim SW200	WF	R	Opt	Opt	9x3½x¼	P
57	1602	4R 8	6400	175	210	36000	11700	P36x8	DP36x8	Her RXC	6-4¾x5¼	BL 60	A 7	No	Tim SW310	WF	R	Opt	Opt	9x3½x¼	P
58	1603	4R 8	7500	184	224	36000	12500	P36x8	DP36x8	Wau 6RB	6-5x5¾	BL 70	A 7	No	Tim SW310	WF	R	Opt	Opt	9x3½x¼	P
59	Dodge. GS50	2C 1½–4	935	153	153	12000	3650	B6.00/20	P32x6	Own	6-3¼x4¼	Own	U 4	No	Own	SF	H	5.85	36. 1	7½x2⅝x⅜	C
60	Bros. FS75	2C 3–9	3995	221	221	30000	8350	B9.00/20	DB9.00/20	Own	6-3¾x5	Own	U 4	No	Own	SF	H	7.13	48.2	10x3¼x⅜	C
61	Fageol. 8-46	4R 8	7800	195	220	40500	13200	B9.75/20	DB9.75/20	Wau 6–125	6-4¾x5½	BL 714	U 4	A 3	Tim Own	WF	R	5.19	127.	8x3½x⅜	C
62	10-46	4R 10	8800	232	232	56000	14700	B9.75/20	DB9.75/20	Wau RB	6-5x5¾	BL 714	U 4	A 3	Tim Own	WF	R	5.19	127.	8½x4x⅜	C
63	Federal. E2SWL	2R 3	1150	145	187	13750	3975	B6.00/20	P32x6	Con 17E	6-3¾x4	WG T9	U 4	No	Cla B374	SF	H	6.38	40.8	6x2¾x¼	C
64	E2DL	4R 3	1450	145	187	14000	4310	B6.00/20	P32x6	Con 17E	6-3¾x4	WG T9	U 4	No	Cla B412	SF	H	6.38	40.8	6x2¾x¼	C
65	16	2R 3	1320	172	198	15000	4300	B6.00/20	P32x6	Her JXB	6-3¾x4¼	WG T9	U 4	No	Cla B412	SF	H	6.38	40.8	8½x2⅛x½	TL
66	17	4R 3	1570	172	198	15000	4700	B6.00/20	P32x6	Her JXB	6-3¾x4¼	WG T9	U 4	No	Cla B412	SF	H	6.38	40.8	8½x2⅛x½	TL
67	36	2R 4½	2975	192	218	24000	7700	B7.50/20	DB7.50/20	Wau 6MK	6-4½x4¾	Cla R908	U 5	No	Cla B642	SF	H	7.16	58.6	10x3¼x⅜	TL
68	37	4R 4½	3350	192	218	24000	8100	B7.50/20	DB7.50/20	Wau 6MK	6-4½x4¾	Cla R908	U 5	No	Cla B642	SF	H	7.16	58.6	10x3¼x⅜	TL
69	T10SW	2R 7	3895	188	224	28000	9600	P34x7	DP34x7	Con 20R	6-4½x4¾	Cla B710	A 5	No	Tim 58200H	SF	H	7.8	50.6	7½x3½x¼	P
70	FWD. MX6	6 10–15	12255	200	Op	48000	17800	B13.50/20	DB13.50/20	Wau RB	6-5x5¾	BL 714	U 4	A 2	Wis 131TW	2F	H	8.36	173.	10x3x⅜	C
71	X6	4F 6–10	7385	170	Op	36000	12000	B9.75/20	DB9.75/20	Wau SRK	6-4¾x5½	Own U	A 5	Op	Own X	BF	H	7.35	73	7x3x⅜	C
72	(6)Gen.Mo. T95	4R 9–11	7695	189	224	40000	13250	P34x7	DP34x7	Own 525	6-4½x5½	Own	U 4	Op	Own	WF	R	8.50	53.3	9x4x⅜	L
73	T130	4R 12–15	9490	189	224	50000	14545	B9.75/20	DB9.75/20	Own 616	6-4¼x5½	Own	U 4	A 3	Own	WF	R	9.50	119.	9x4x⅝	L
74	Hendrick'n. 21D	4R 2–6	3500	Op	Op	21000	6800	B7.50/20	DB7.50/20	Wau 6-90	6-3¾x4¾	Fu 5A38	U 5	No	Own 985	SF	H	Opt	Opt	8x3x⅜	C
75	25D	4R 3–8	3900	Op	Op	25000	8000	B8.25/20	DB8.25/20	Wau 6-110	6-4x4¾	Fu 5A38	U 5	No	Own 985	SF	H	Opt	Opt	8x3x⅜	C
76	32D	4R 4–9	4900	Op	Op	32000	10500	B9.00/20	DB9.00/20	Wau 6-110	6-4x4¾	Fu 5A38	U 5	No	Own 2513X	SF	R	Opt	Opt	8x3x⅜	P
77	38D	4R 5–12	6600	Op	Op	38000	11200	B9.75/20	DB9.75/20	Wau 6-125	6-4¾x5¼	Fu 5A53	U 5	No	Own 2513X	SF	R	Opt	Opt	8x3x⅜	P
78	40D	4R 12	8000	Op	Op	40000	13200	B9.75/20	DB9.75/20	Wau 6-125	6-4¾x5¼	Fu 5A53	U 5	No	Eat 44000	2F	R	Opt	Opt	8x3x⅜	P
79	44D	4R 12	9000	Op	Op	44000	14000	B9.75/20	DB9.75/20	Wau 6RB	6-5x5¾	BL 70-7	A 7	No	Eat 44000	2F	R	Opt	Opt	8x3x⅜	P
80	Hug. 99	4R 10	10300	148	148	58500	15100	S36x8	S40x16	Bud GF6	6-4¾x6	BL 714-703	U 4	A 3	Wis SD420AW	2F	R	10.3	139.	9x4½x½	I
81	Ind. 95SBT-151	2C 3	1875	168	186	20000	6125	P32x6	DP32x6	Her JXC	6-3¾x4¼	BL 224	U 4	No	Tim SBT151	SF	T	7.4	45.8	7½x2¾x½	T
82	95SW 75	4R 3	1900	168	186	20000	5800	P32x6	DP32x6	Her JXC	6-3¾x4¼	BL 224	U 4	No	Tim SW75	WF	T	7.4	45.8	7½x2¾x½	T
83	17ASW151	2R 3	3450	185	212	24000	7500	B8.25/20	DB8.25/20	Her WXC	6-4¼x4¼	BL 3341	U 4	Op	Tim SW151	WF	T	6.4	403.	8½x3x⅜	TL
84	17SBT251	2C 4	3500	188	224	28000	8850	P34x7	DP34x7	Her YXC	6-4¼x4¾	BL 524	U 4	Op	Tim SBT251	SF	T	6.1	37 8	8½x3x⅜	TL
85	17SW251	4R 4	3900	188	224	28000	9500	P34x7	DP34x7	Her YXC	6-4¼x4¾	BL 524	U 4	Op	Tim SW251	WF	T	6.2	38 1	8½x3x⅜	TL
86	16X6	6 3	5650	170	...	20000	8000	B7.00/20	DB7.00/20	Her RXB	6-4½x5¼	BL	U 4	U 2	Wis	2F	H	4.66	....	8x3x¼	C
87	18X6	6 3½	6650	170	...	28000	10500	B8.25/20	DB8.25/20	Her RXC	6-4½x5¼	BL	U 4	A 2	Wis	2F	H	7.83	110.	8½x3x⅜	C
88	20X6	6 4½	8950	188	...	36000	14000	B9.00/20	DB9.00/20	Her HXC	6-5¼x6	BL	U 4	A 2	Wis	2F	R	8.95	84.0	9x3x¼	C
89	22X6	6 5	12100	200	...	40000	16000	B9.75/20	DB9.75/20	Her HXD	6-5½x6	BL	U 4	A 2	Wis	2F	R	9.11	86.0	8¼x3⅜x⅝	C
90	Ken. 89SBT	2C 7	2380	188	224	25500	7350	P32x6	DP32x6	Her JXC	6-3¾x4¼	BL 234	U 4	Op	Tim SBT151	SF	A	7.4	45.5	8x3x¼	TL
91	127SBT	2C 8	3450	188	224	26000	8000	B8.25/20	DB8.25/20	Her WXC2	6-4½x4¼	BL 334	U 4	Op	Tim SBT151	SF	A	7.4	45.5	8x3x¼	TL
92	146SBT	2C 9	4250	188	224	33000	9000	B9.00/20	DB9.00/20	Bud K393	6-4¼x4¾	BL 334	U 4	Op	Tim SBT251	SF	A	7.8	48.	8x3x¼	TL
93	186SDT	2C 10	6450	205	235	38000	10500	B9.00/20	DB9.00/20	Her YXC2	6-4½x4¾	BL 1554	U 4	A 3	Tim Sdt310w	2F	H	7.33	104.	9x3x¼	T
94	241SDT	2C 10	6850	205	235	40500	11000	B9.00/20	DB9.00/20	Her RXB	6-4½x5½	BL 714	U 4	A 3	Tim Sdt310w	2F	H	7.33	85.5	9x3x¼	T
95	346A	4R 10	8800	210	240	40500	13000	B9.75/20	DB9.75/20	Ha8 160	6-4¼x5½	BL 714	U 4	A 3	Tim SW310w	WF	H	7.25	84.5	8x3x¼	C
96	346B	4R 10	8550	210	240	40500	13000	B9.75/20	DB9.75/20	Bud GF-6	6-4¾x6	BL 714	U 4	A 3	Tim SW310w	WF	H	7.25	98.4	8x3x¼	C
97	346C	4R 10	9500	210	240	40500	14000	B9.75/20	DB9.75/20	Ha8 175	6-5x6	BL 714	U 4	A 3	Tim SW310w	WF	H	7.25	98.4	8x3x¼	C
98	386C	4R 10	10200	210	240	50100	14500	B9.75/20	DB9.75/20	Ha8 175	6-5x6	BL 714	U 4	A 3	Tim SW410w	WF	H	7.60	103.	8x3x¼	C
99	La Fran-R. Q6	4R 9–12	11605	216	260	40000	14900	B10.50/20	DB10.50/20	Own 312B	12-4x5	BL 714	U 4	No	Tim SWD410	WF		Opt	Opt	12x3¼x¼	C
100	Le Moon (9) 701	4R 5–6	4475	187	199	25500	8500	B8.25/20	DB8.25/20	Lyc AEC	8-3¾x4¾	Fu VUOG	U 5	No	T' 63703-97H	WF	R	6.20	43. 8	7x4x¼	B
101	801	4R 6–7	5100	187	199	32500	9720	B9.00/20	DB9.00/20	Lyc AEC	8-3¾x4¾	Fu VUOG	U 5	No	Ti 65703-97H	WF	H	6.75	47.7	7x4x¼	B
102	802	4R 6–7	5350	187	199	32500	9800	B9.00/20	DB9.00/20	Wau 68RL	6-4¾x5½	Fu VUOG	U 5	No	T65703-97tW	WF	H	6.75	47.1	7x4x¼	B
103	900	4R 7–8	6775	191	203	36000	12000	B9.75/20	DB9.75/20	Wau 68RL	6-4¾x5½	BL 607	A 7	No	Tim SW310W	WF	H	9.25	86.9	9x4x⅜	B
104	1000	4R 8–10	7950	196	208	40000	12600	B9.75/24	DB9.75/24	Wau 6AB	6-4½x5¾	BL 714	U 4	3	Tim SW310W	WF	H	9.25	128.	9x4x⅜	B
105	1200	4R 10–12	8500	196	208	40000	14000	B9.75/24	DB9.75/24	Wau 6RB	6-5x5¾	BL 714	U 4	3	Tim SW410W	WF	H	9.25	128.	9x4x⅜	B
106	1200D	4R 10–12	9750	196	208	40000	14000	B9.75/24	DB9.75/24	Cum.Die.H6	6-4¾x6	BL 735	U 5	No	Tim SW410W	WF	H	7.6	47. 6	9x4x⅜	B
107	Mack. BX	4R 8–15	7950	178	207	.....	12000	B8.25/22	DB8.25/22	Own CF	6-4¼x5½	Own BX	U 4	No	Own BX6	2F	A	6.53	46.0	9½x3⅜x¼	C
108	BQ	4R 8–15	9350	224	248	.....	15000	B9.75/22	DB9.75/22	Own BQ	6-4¾x5¾	Own AC	A 4	No	Own BX6	2F	A	6.54	41.9	10½x3¼	C
109	AC	4R 8–15	8500	217	257	.....	14550	P40x8	DP40x8	Own BQ	6-4¾x5¾	Own AC	J 4	No	Own AC	CD	R	9.26	59. 4	8½x3⅜x⅜	C
110	AK	4R 8–15	9000	217	257	.....	15900	B9.75/22	DB9.75/22	Own BQ	6-4¾x5¾	Own AC	A 4	No	Own AK6	2F	A	7.46	47.8	8½x3⅜x⅜	C
111	AP	4R 8–15	10500	217	257	.....	14850	P40x8	DP40x8	Own AP	6-5x6	Own AC	J 4	No	Own AC	CD	R	9.26	59. 4	8x3x⅜	C
112	AP	4R 8–15	11000	217	257	.....	16400	B9.75/22	DB9.75/22	Own AP	6-5x6	Own AC	A 4	No	Own AK6	2F	A	7.46	47.8	8½x3⅜x⅜	C
113	Mar.-Her. TH310A-6	10	10000	193	229	.....	14070	B9.75/22	DB9.75/22	Her RXC	6-4¾x5¼	Fu 5A530	U 5	A 2	Own-Wis	2F	R	9.11	163.	8½x3x⅜	P
114	(13)TH315	6 12–13	12500	198	234	.....	15420	B9.75/22	DB9.75/22	Her HXB	6-5x6	BL 724	U 4	A 3	Own-Wis	2F	R	9.11	163.	8½x3x⅜	P
115	(13)TH320	6 15–18	14500	225	255	.....	18450	B10.50/24	DB10.50/24	Her HXC	6-5¼x6	BL 724	U 4	A 3	Own-Wis	2F	R	9.11	188.	10x3x⅜	P
116	Moreland. RA15	2C 3	1550	153	Op	15000	5300	B6.50/20	DB6.50/20	Her JXC	6-3¾x4¼	BL 224	U 4	No	Tim SBT75	SF	R	5.66	35.0	7½x2⅝x¼	T
117	(con't.) RA20	2C 5	1981	149	Op	20000	6100	P32x6	DP32x6	Her JXC	6-3¾x4¼	BL 224	U 4	No	Tim SBT151	SF	R	6.17	38.2	7½x2⅝x¼	T

Line Number	ENGINE DETAILS: Piston Displacement	Compression Ratio	Torque lb. ft.	N.A.C.C. Rated H.P.	Max. Brake H.P. at R.P.M. Given	Valve Arrangement	Camshaft Drive	Piston Material	Main Bearings: Number and Diameter	Main Bearings: Length	Oiling System Type	Governor Make	FUEL SYST.: Carburetors Make	Fuel Feed	ELECTRICAL: Ignition System Make	Generator, Starter Make	Clutch Type and Make	Radiator Make	Universals Make	FRONT AXLE: Make and Model	Steering Gear Make	BRAKES: SERVICE: Make, Location, Operation	Lining Area	Drum Material	Hand Location, Type	BODY MOUNTING DATA: Cab to Rear of Frame	Cab to Rear Axle	Width of Frame	SPRINGS: Front	Rear	Auxiliary Type
1	411	4.6	265	40.8	91-2300	L	G	C	7–3	13⅞	PC	Wa	Zen	M	NE	NE	D.BL	Pe	Blo	Own U	Ros	O4IM	722	G	4D	Opt	Opt	42	42¾x2½	52x4	N
2	677	4.4	460	60.	125-2000	L	G	C	4–3½	11⅝	PC	Wa	Zen	M	NE	NE	D.BL	Pe	Blo	Wis 131F	Ros	B4IMV	324	G	T4	153½	110½	34	48x3½	52x4	N
3	462	4.4	330	45.9	125-2500	F	G	C	7–3	13⅜	PC	Ha	Zen	P	NE	NE	O.ME	Pe	Blo	Own U	Ros	O4A	610	G	T4	107	80	34	42¾x2½	52¾x2½	N
4	462	4.4	330	45.9	125-2500	F	G	C	7–3	13⅜	PC	Wa	Zen	M	NE	NE	D.BL	Pe	Blo	Wis 1237	Ros	4A	610	G	T4	97¼	67¼	34	48x3½	52x3½	N
5	282	5.4	176	33.8	73-2800	L	G	A	7–2⅝	10⅛	PC	Opt	Str	M	AL	AL	P.BL	Yo	Spi	Wis	Ros	L4IH	...	G	CD	92	56	34	37x2¼	54x2½	N
6	298	4.7	190	33.7	70-2600	L	G	A	7–2⅝	13¼	PC	Ha	Str	M	AL	AL	P.BL	Yo	Spi	Wis	Ros	L4IH	...	G	CD	92	56	34	37x2¼	54x2½	N
7	361	4.7	235	38.4	82-2400	L	G	A	7–2⅝	13¼	PC	Ha	Str	M	AL	AL	P.BL	Yo	Spi	Wis	Ros	L4IHV	...	G	CD	108	73¼	34	39½x2½	54x3	N
8	428	4.5	283	45.9	94-2200	L	G	A	7–3	14	PC	Ha	Str	M	AL	AL	P.BL	Yo	Spi	Wis	Ros	L4IHV	...	G	CD	120	72	34	44x3	50x4	N
9	478	4.4	315	51.3	104-2200	L	G	A	7–3	14	PC	Ha	Str	M	AL	AL	P.BL	Yo	SPC	Tim	Ros	L4IHV	918	G	CD	120	72	34	44x3	50x4	N
10	707	4.5	455	60.	148-2000	L	G	A	7–3½	17½	PC	Ha	Str	M	AL	AL	P.BL	Yo	Spi	Wis	Ros	L4IHV	...	G	CD	144	88	34	44x3	50x4	N
11	779	4.5	505	66.2	163-2000	L	G	A	7–3½	17½	PC	Ha	Str	M	AL	AL	P.BL	Yo	Spi	Wis	Ros	Ws4IA	...	G	CD	168	100	34	44x3	50x4	N
12	228	4.7	156	27.3	63-2800	L	G	C	7–2½	10⅛	PC	No	Zen	M	DR	DR	P.BB	Yo	Spi	TWH	Ros	L4IH	267	a	FX	88	52	34	42x2½	50x2½	½
13	282	5.3	193	33.7	73-2800	L	G	C	7–2½	10⅛	PC	No	Zen	M	DR	DR	P.BB	Yo	Spi	TWH	Ros	L4IH	281	a	FD	88	52	34	42x2½	50x2½	½
14	339	5.0	235	38.4	94-2800	L	G	A	7–2⅝	13¼	PC	No	Zen	M	DR	DR	P.BB	Yo	Spi	TWH	Ros	L4IHV	342	a	FD	119	72	34	44x3	52x3	½
15	383	5.0	265	43.3	106-2800	L	G	A	7–2⅝	13¼	PC	No	Zen	M	DR	DR	P.BB	Yo	Blo	TWH	Ros	L4IHV	384	a	FD	119	72	43	44x3	52x3	½
16	383	5.0	265	43.3	106-2800	L	G	A	7–2⅝	13¼	PC	Ha	Zen	M	DR	DR	P.BB	Yo	Blo	Own-Wis	Ros	W2/4IA	328	a	FD	119	72	34	44x3	52x3	½
17	428	4.4	280	45.9	94-2200	L	G	A	7–3	14	PC	Ha	Zen	M	DR	DR	D.Fu	Yo	Blo	Own-Wis	Ros	W2/4IA	328	a	FD	109	72	34	44x3	52x3½	½
18	478	4.4	320	51.3	104-2200	L	G	A	7–3	14	PC	Ha	Zen	M	DR	DR	D.Fu	Yo	Blo	Own-Wis	Ros	W2/4IA	410	a	FD	109	72	34	44x3	52x3½	½
19	529	4.9	350	51.3	114-2200	L	G	A	7–3	14	PC	Ha	Zen	M	DR	DR	D.Fu	Yo	Blo	Own-Wis	Ros	W2/4IA	380	a	FD	109	72	34	44x3	52x3½	½
20	707	4.5	460	60.0	148-2000	L	G	A	7–3½	17	PC	Ha	Zen	M	DR	DR	dp.BL	Yo	Blo	Own-Wis	Ros	Ws2/41A	380	a	FD	168	102	34	52x4	54x4	½
21	779	4.5	508	66.2	164-2000	L	G	A	7–3½	17	PC	Ha	Zen	M	DR	DR	dp.BL	Yo	Blo	Own-Wis	Ros	Ws2/41A	380	a	2FD	140	102	34	52x4	54x4	½
22	339	4.7	225	38.4	75-2200	L	G	C	7–2½	13¼	PC	No	Zen	M	AL	AL	P.BL	Ow	Spi	Own JSB	Ha	B4IMV	304	G	TX	77½	51	34	44x2½	44x2½	½
23	282	5.3	176	33.7	72-2800	L	G	C	7–2½	10⅛	PC	No	Zen	M	AL	AL	P.BL	Ow	Spi	Own JSB	Ha	B4IMV	304	G	TX	103½	77	34	42x2½	44x2½	½
24	282	5.3	176	33.7	72-2500	L	G	C	7–2½	10⅛	PC	Ha	Str	M	RB	LN	D.BL	Mo	Blo	Own LB	Ros	O4XM	142	C	2I	112¼	82	34	44x2½	50x3	½
25	339	4.7	210	38.4	70-2000	L	G	C	7–2⅝	13¼	PC	Ha	Str	M	RB	LN	D.BL	Mo	Blo	Own LC	Ros	O4XM	142	G	2I	112¼	82	34	44x2½	50x3	½
26	383	4.7	265	43.3	91-2000	L	G	C	7–2⅝	13¼	PC	Ha	Zen	M	LN	RB	P.BB	Ch	Blo	Own B3S	Ros	B4IMV	518	G	TX	112¼	82	34	44x2½	50x3	½
27	383	4.7	265	43.3	91-2000	L	G	C	7–2⅝	13¼	PC	Ha	Zen	M	LN	RB	P.BB	Ch	Blo	Own B3D	Ros	B4IMV	518	G	TX	112¼	82	34	44x2½	50x3	½
28	453	4.4	297	48.6	95-2000	L	G	C	7–3	15	PC	Ha	Zen	M	LN	RB	P.BB	Ch	Blo	Own C3S	Ros	B4IMV	518	G	TX	112¼	82	34	44x2½	50x3	½
29	453	4.4	297	48.6	95-2000	L	G	C	7–3	15	PC	Ha	Zen	M	LN	RB	P.BB	Ch	Blo	Own C3D	Ros	B4IMV	518	G	TX	112¼	82	34	44x2½	50x3	½
30	500	4.9	330	48.6	106-2000	L	G	A	7–3	12½	PC	Ha	Zen	M	LN	RB	P.BB	Ch	Blo	Own FC	Ros	B4IMV	666	G	TX	112¼	82	34	44x2½	50x3	½
31	529	4.9	350	51.3	112-2000	L	G	A	7–3	12½	PC	Ha	Zen	M	LN	RB	P.BB	Ch	Blo	Own FB	Ros	B4IMV	666	G	TX	112¼	82	34	44x2½	50x3	½
32	529	4.9	350	51.3	112-2000	L	G	A	7–3	12½	PC	Ha	Zen	M	LN	RB	P.BB	Ch	Blo	Own FD	Ros	B4IMV	666	G	TX	112¼	82	34	44x3	50x4	½
33	677	4.5	440	60.0	142-2000	L	G	A	7–3½	17	PC	Ha	Zen	M	LN	LN	dp.BL	Ch	Blo	Own BG3	Ros	B4IMV	666	G	FD	119	85	36	48x3½	52x4	½
34	855	4.5	555	72.8	180-2000	L	G	C	7–3½	17	PC	Ha	Zen	M	LN	LN	dp.BL	Ch	Blo	Own GD	Ros	B4IMV	666	G	FD	119	85	36	48x3½	52x4	½
35	381	4.5	240	40.0	85-2200	L	G	C	7–2⅝	12⅝	FP	Ow	Zen	P	DR	DR	P.Ow	Ow	Own	Own FN	Ros	O4FXM	450	D	FM	126	84	34	48x3	48x3	½
36	462	4.5	300	46.0	100-1900	L	G	C	7–3	13⅞	FP	Ow	Zen	P	DR	DR	P.Ow	Ow	Own	Own FM	Ros	O4FXM	450	D	FM	126	84	34	48x4	48x4	½
37	462	4.5	300	46.0	100-1900	L	G	C	7–3	13⅞	PC	Ow	Zen	V	Sc	DR	P.Ow	Ow	Own	Own F	Ros	O4FXM	600	D	FX	108	78	36	52x4	52x4	½
38	517	4.5	330	51.0	110-1900	A	C	C	7–3	13⅞	PC	Ow	Zen	V	Sc	DR	P.Ow	Ow	Own	Own F	Ros	O4FXM	600	D	FX	126	96	36	52x4	52x4	½
39	677	4.5	440	60.0	130-1900	L	G	C	7–3½	10⅜	PC	Ow	Zen	P	Sc	DR	P.Ow	Ow	Own	Own F	Ros	O4FXM	600	D	FX	126	96	36	52x4	52x4	½
40	677	4.5	440	60.0	130-1900	L	G	C	7–3½	10⅜	PC	Ow	Zen	P	Sc	DR	P.Ow	Ow	Own	Own F	Ros	O4FXM	600	D	FX	126	96	36	52x4	52x5	½
41	360	4.5	240	40.8	90-2500	H	G	N	7–2¾	13	CC	KP	Zen	M	AL	AL	P. Li	GO	Spi	Shu 15692B12	Ros	L6IHV	708	G	CD	210	125	34¼	40x2½	52x4	N
42	360	4.4	240	40.8	90-2500	L	C	C	7–2⅝	11⅜	FP	Op	Zen	M	DR	DR	P.Li	Pe	Spi	Wis F75AB	Ros	L6IH	459	a	TD	Opt	Opt	34	40x2½	46x3	N
43	420	5.2	300	44.4	130-2800	L	G	A	5–2¾	12¾	FP	Ly	Zen	M	DR	DR	P.Li	Pe	Spi	Wis F75AB	Ros	Ws6IA	459	a	TD	Opt	Opt	34	40x2½	46x3	N
44	381	4.6	276	40.0	106-2600	H	C	C	7–2¾	13	FP	No	Zen	M	DR	DR	P.BL	Pe	Spi	Tim 33000tw	Ros	Ws6IA	459	a	TD	Opt	Opt	34	40x2½	56x4	½
45	428	4.6	276	45.9	118-2600	H	C	C	7–2¾	13	FP	No	Zen	M	DR	DR	P.BL	Pe	Spi	Tim 35000tw	Ros	Ws6IA	525	a	TD	Opt	Opt	34	46x3	56x4	½
46	500	4.5	340	48.6	138-2500	H	C	A	7–2¾	13⅛	FP	Op	Zen	M	DR	DR	P.Li	Pe	Spi	Wis F211W	Ros	Ws6IA	525	a	TD	Opt	Opt	34	46x3	56½x4	N
47	428	4.6	276	45.9	118-2600	H	C	C	7–2¾	13	FP	No	Zen	M	DR	DR	P.BL	Pe	Spi	Tim 27450W	Ros	Ws6IA	536	a	TD	Opt	Opt	34	46x3	66x4	½
48	707	4.5	460	60.0	150-2000	L	G	A	7–3½	17	FP	Op	Str	M	DR	DR	dp.BL	Pe	Spi	Wis F311W	Ros	Ws6IA	536	a	TD	Opt	Opt	34	46x3	66x4	½
49	611	4.5	384	54.1	127-2300	L	G	A	7–3	13⅛	FP	No	Zen	M	DR	DR	P.BL	Pe	Spi	Tim 27450W	Ros	Ws6IA	720	a	TD	Opt	Opt	34	46x3	66x4	½
50	779	4.5	508	66.2	164-2000	L	G	A	7–3½	17	FP	Op	Str	M	DR	DR	dp.BL	Pe	Spi	Wis F311W	Ros	Ws6IA	720	a	TD	Opt	Opt	34	46x3	66x4	½
51	263	4.4	164	31.5	68-2800	L	G	C	7–2½	10⅛	PC	No	Zen	M	DR	DR	P.BB	GO	Spi	Tim 30000H	Ros	L6IH	...	a	XF	180	111	33½	40x2¼	46x3	½
52	529	4.4	350	51.3	114-2200	L	G	A	7–3	12½	PC	No	Zen	M	DR	DR	P.BL	Pe	Spi	Tim 26450H	Ros	L6IH	842	a	DF	213	120	33	46x3	64x4	½
53	529	4.4	350	51.3	114-2200	L	G	A	7–3	12½	PC	No	Zen	M	DR	DR	P.BL	Pe	Spi	Tim 26450W	Ros	Ws6IA	1014	a	DF	213	120	33	46x3	64x5	½
54	529	4.4	350	51.3	114-2200	L	G	A	7–3	12½	PC	No	Zen	M	DR	DR	P.BL	Pe	Spi	Tim 26450W	Ros	Ws6IA	1014	a	DF	213	120	33	45x3	64x5	½
55	428	4.4	280	45.9	93-2200	L	G	C	7–3	14	PC	Ha	Zen	M	AL	AL	D.Co	GO	SpP	Shu 5582B	Ros	L6IHV	571	a	TD	162	103	34	45¼x2½	58x4	N
56	501	4.4	330	48.6	111-2200	L	G	C	7–3	12½	PC	Ha	Zen	M	AL	AL	D.Co	GO	SpB	Shu 678	Ros	Ws4IA	238	a	TD	162	100¼	37	46x3	50x4	N
57	529	4.4	350	51.3	114-2200	L	G	C	7–3	12½	PC	Ha	Zen	M	AL	AL	D.Co	GO	SpB	Shu 678	Ros	Ws4IA	238	a	TD	138¾	94¾	37	46x3	50x4	N
58	707	...	455	60.0	148-2000	L	G	C	7–3½	17	PC	Ha	Zen	M	LN	LN	D.BL	GO	SpB	Shu 678	Ros	Ws4IA	238	a	TD	141	93	37	46x3	50x4	N
59	211	5.3	130	25.3	60-3100	L	C	S	4–2½	6¼	CC	No	Car	M	DR	DR	P.BB	Fe	Own	Own	Own	O6IHV	273	a	TX	117½	50½	34½	36x1¾	43⅜x3	N
60	309	4.7	198	21.0	96-3000	L	G	S	7–2⅝	11¾	CC	Ha	Det	M	DR	DR	P.BB	Fe	Own	Own	Jac	O6IHV	657	a	CD	218⅞	114⅜	34⅜	42x3	56¼x4	N
61	462	5.2	324	46.0	125-2600	F	G	A	7–3	13¾	FP	Wa	Zen	M	My	DR	P.BL	Pe	Spi	Tim 36020N	Ros	Ws4rIA	504	H	FD	168	114⅝	33½	41x3	46x3½	N
62	677	4.4	460	60.	125-1800	L	G	A	4–3½	11⅜	CC	No	Zen	M	DR	DR	P.BL	Pe	Spi	Tim 27050	Ros	Ws4rIA	630	H	FD	214¼	144½	33½	42½x3	49½x4	N
63	215	5.1	137	27.3	60-2600	L	C	A	7–2½	9⅛	CC	Mo	Zen	M	DR	DR	P.BB	Lo	Cle	Cla F212	Ge	L6IH	336	a	TX	118	63¾	34	38x2¼	40½x2½	N
64	215	5.1	137	27.3	60-2600	L	C	A	7–2½	9⅛	CC	Mo	Zen	M	DR	DR	P.BB	Lo	Cle	Cla F212	Ge	L6IH	336	a	TX	118	63¾	34	38x2¼	40½x2½	N
65	263	5.4	164	31.5	67-2600	L	G	A	7–2½	10⅛	PC	Mo	Car	M	DR	DR	P.BB	Lo	Spi	Cla F212	Ge	L6IH	384	a	TX	143	86½	34	38x2½	40½x2½	N
66	263	5.4	164	31.5	67-2600	L	G	A	7–2½	10⅛	PC	Mo	Car	M	DR	DR	P.BB	Lo	Spi	Cla F212	Ge	L6IH	384	a	TX	143	86½	34	38x2½	40½x2½	N
67	381	4.8	240	40 8	85-2400	L	G	A	7–2½	12½	FP	Wa	Zen	M	DR	DR	P.BB	Lo	Spi	Cla F320	Ros	L6IHV	485	a	FD	168	99¼	34	42x2½	44x3	N
68	381	4.8	240	40.8	85-2400	L	G	A	7–2⅝	12½	FP	Wa	Zen	M	DR	DR	P.BB	Lo	Spi	Cla F320	Ros	L6IHV	485	a	FD	168	99½	34	42x2½	44x3	N
69	381	4.2	237	40.8	85-2200	H	C	C	7–2¾	13⅛	CC	KP	Zen	M	DR	DR	P.BB	Lo	Spi	Own 7738	Ros	L6IHV	623	a	TD	182	102	34	42x2½	50x3½	N
70	677	4.4	460	60.0	125-2000	L	G	C	4–3½	11⅜	PC	Wa	Zen	M	NE	NE	D.BL	Pe	Blo	Wis 131F	Ros	B6IMV	504	G	T4	220	145	34	48x3½	40x5	N
71	517	4.5	330	51.3	110-2400	L	G	C	7–3	13⅜	PC	Wa	Zen	M	NE	NE	D.BL	Pe	Blo	Own M	Ros	B6IA	864	G	4I	180	137	36	42¾x2½	44x3	N
72	525	4.5	380	48.6	128-2100	H	C	A	7–2¾	14⅛	FP	Ha	Str	M	DR	DR	dp.Ow	Lo	Spi	Own	Jac	B6IA	817	a	TX	161	100	34⅛	50x3½	45x4	N
73	616	4.5	450	57.0	149-3100	H	C	A	7–2¾	14⅛	FP	Ha	Str	M	DR	DR	dp.Ow	Lo	Spi	Own	Jac	B6IA	965	a	TX	161	100	34⅛	50x3½	45x4	N
74	255	4.6	182	27.3	90-3200	F	G	C	4–2⅝	6⅛	PC	Wa	Zen	M	DR	DR	D.Fu	Ch	MM	Tim 33000H	Ros	L4IHV	295	p	TD	Opt	Opt	34	40½x3½	31x3	N
75	358	4.6	254	38.4	110-2800	F	G	C	7–2⅝	12½	PC	Wa	Zen	M	DR	DR	D.Fu	Ch	MM	Tim 33000H	Ros	L4IHV	295	p	TD	Opt	Opt	34	40½x3½	31x3	N
76	358	4.6	254	38.4	110-2800	F	G	C	7–2⅝	12½	PC	Wa	Zen	M	DR	DR	D.Fu	Ch	MM	Tim 35000H	Ros	L4IHV	504	G	TD	Opt	Opt	34	40½x3½	35½x4	N
77	462	4.6	324	45.9	125-2600	F	G	C	7–3	13⅜	PC	Wa	Zen	M	DR	DR	D.Fu	Ch	MM	Tim 27450	Ros	L4IHV	504	G	TD	Opt	Opt	34	43x3½	35½x4	N
78	462	4.6	324	45.9	125-2600	F	G	C	7–3	13⅜	PC	Wa	Zen	M	DR	DR	D.Fu	Ch	Blo	Tim 27450	Ros	Ws4IA	780	G	TD	Opt	Opt	34	43x3½	35½x4	N
79	677	4.6	440	60.0	126-1850	L	G	C	4–3½	10⅞	PC	Wa	Zen	M	DR	DR	D.BL	Ch	Blo	Tim 27450	Ros	Ws4IA	788	G	TD	Opt	Opt	34	43x3½	35½x4	N
80	638	4.3	410	54.1	126-1850	L	G	C	4–3	10⅞	PC	Pe	Zen	M	RB	No	dp.BL	Yo	Blo	Shu 715-11	Ros	Ws4rIA	720	G	TD	139	88¼	38½	41⅞x3	53x4	N
81	282	5.3	186	33.7	73-2800	L	G	A	7–2½	10⅛	PC	No	Str	M	AL	AL	P.BL	Yo	Spi	Tim 31020	Ros	L6IHV	559	G	TX	140	83	34	37x2¼	52x4	N
82	282	5.3	186	33.7	73-2800	L	G	A	7–2½	10⅛	PC	No	Str	M	AL	AL	P.BL	Yo	Spi	Tim 31020	Ros	L6IHV	459	G	TX	140	83	34	37x2¼	44x3	N
83	339	4.7	210	38.4	76-2400	L	G	A	7–2⅝	13¼	PC	Op	Str	M	AL	AL	P.BL	Yo	Spi	Shu 5572	Ros	L41HV	559	G	CD	168	101	34½	39½x2½	52x4	N
84	428	4.4	283	45.9	94-2200	L	G	A	7–3	14	PC	Ha	Str	M	AL	AL	P.BL	Yo	Spi	Shu 5582B	Ros	L6IHV	625	G	CD	168	101	34½	40x2½	52x4	N
85	428	4.4	283	45.9	94-2200	L	G	A	7–3	14	PC	Ha	Str	M	AL	AL	P.BL	Yo	Spi	Shu 5582B	Ros	L6 IHV	625	G	CD	168	101	34½	40x2½	52x4	N
86	501	5.0	330	48.6	110-2200	L	G	A	7–3	12½	PC	Ha	Str	M	AL	AL	P.BL	Yo	Spi	Wis	Ros	L6IHV	...	G	CD	142	87¼	34	39½x2½	54x3	N
87	529	4.9	350	51.3	115-2200	L	G	A	7–3	12½	PC	Ha	Str	M	AL	AL	P.BL	Yo	Spi	Wis	Ros	L6IHV	...	G	CD	142	87¼	34	44x3	52x4	N
88	779	4.5	505	66.2	163-2000	L	G	A	7–3½	17½	PC	Ha	Str	M	AL	AL	P.BL	Yo	Spi	Wis	Ros	Ws6IA	...	G	CD	144	88	34	44x3	42x4	N
89	855	4.5	555	72.8	180-2000	L	G	A	7–3½	17½	PC	Ha	Str	M	AL	AL	P.BL	Yo	Spi	Wis	Ros	Ws6IA	...	G	CD	168	100	34	44x3	42x4	N
90	282	4.7	176	33.7	73-2700	L	G	A	7–2½	10⅛	FP	No	Zen	M	DR	DR	P.BL	Pe	Spi	Tim 31000H	Ros	L6IHV	536	a	TX	168	102	31½	38x2¼	52x4	N
91	361	4.4	235	40.8	83-2400	L	G	A	7–2⅝	13¼	FP	No	Zen	M	DR	DR	P.BL	Pe	Spi	Tim 33000H	Ros	L6IHV	536	a	FD	168	102	31½	38x2½	52x4	N
92	393	4.9	260	42.0	103-2600	L	G	C	7–3	11½	FP	No	Zen	M	DR	DR	P.BL	Pe	Spi	Tim 33000H	Ros	Ws4IA	654	a	FD	168	102	31½	38x2½	52x4	N
93	453	4.7	300	48.6	98-2200	L	G	A	7–3	14	CC	Ha	Zen	M	DR	DR	P.BL	Pe	Spi	Tim 35000N	Ros	Ws4rA	815	a	FD	192	120	33¾	42x3	56x4	½
94	501	4.9	330	48.6	110-2200	L	G	A	7–3	12½	CC	Ha	Zen	M	DR	DR	P.BL	Pe	Spi	Tim 36020N	Ros	Ws4rA	815	a	FD	192	120	33¾	42x3	56x4	½
95	418	4.4	322	3.3	125-2400	H	C	A	4–2¾	10⅜	FP	No	Zen	M	DR	DR	P.BL	Pe	Spi	Tim 36020N	Ros	Ws4rA	815	a	FD	192	120	33¾	42x3	56x4	½
96	638	4.3	410	54.1	126-1850	L	G	C	4–3	10⅞	CC	Bu	Zen	M	DR	DR	P.BL	Pe	Spi	Tim 36020N	Ros	Ws4rA	815	a	FD	192	120	33¾	42x3	56x4	½
97	707	4.4	506	60.0	170-2000	H	C	A	7–3½	11⅛	FP	HS	Zen	M	DR	DR	P.BL	Pe	Spi	Tim 36020N	Ros	Ws4rA	815	a	FD	192	120	33¾	42x3	56x4	½
98	707	4.4	506	60.0	170-2000	H	C	A	7–3½	11⅛	FP	HS	Zen	M	DR	DR	P.BL	Pe	Spi	Tim 36020N	Ros	Ws4rA	815	a	FD	192	120	33¾	42x3	56x4	½
99	754	5.1	510	76.7	240-2900	H	C	C	4–3½	10	PC	No	Zen	M	DR	DR	dp. Lo	Ow	Blo	Tim 27450tw	Ros	Ws6IA	782	Da	CD	111⅝	216	34	44x3	None	N
100	420	5.2	300	44.4	130-2800	L	G	C	5–2¾	12¾	FP	Ha	Str	M	DR	DR	D.Fu	Ch	Spi	Tim 35000H	Ros	L6IHV	525	a	CD	162	108	34	39x2½	39x2½	N
101	420	5.2	300	44.4	130-2800	L	G	C	5–2¾	12¾	FP	Ha	Str	M	DR	DR	D.Fu	Ch	Spi	Tim 35000H	Ros	L6IHV	633	a	CD	162	108	34	39x2½	46x3½	N
102	462	4.5	300	45.9	98-2000	L	G	A	7–3	13⅜	PC	Wa	Str	M	AL	DR	D.Fu	Ch	Spi	Tim 35000tw	Ros	Ws6IA	711	a	CD	162	108	34	39x2½	46x3½	N
103	462	4.5	300	45.9	98-2000	L	G	A	7–3	13⅜	PC	Wa	Str	M	AL	DR	D.BL	Ch	Spi	Tim 26045tw	Ros	Ws6IA	966	a	CD	162	108	34	48x3½	53x4	N
104	549	4.5	332	48.6	100-2000	L	G	A	4–3½	11⅜	PC	Wa	Str	M	AL	LN	D.BL	Ch	Spi	Tim 26045tw	Ros	Ws6IA	966	a	CD	162	108	34	48x3½	53x4	N
105	677	4.6	460	60.0	127-2000	L	G	A	4–3½	11⅜	PC	Wa	Str	M	AL	LN	D.BL	Ch	Spi	Tim 27045tw	Ros	Ws4IA	792	a	FD	162	108	34	48x3½	53x4	N
106	677	17.1	420	57.0	125-1800	H	G	C	7–3¼	14	CC	Ha	Zen	No	P	No	LN	dp.BL	Ch	Spi	Tim 27045tw	Ros	Ws6IA	966	a	CD	162	108	34	48x3½	53x4	N
107	468	4.6	292	43.4	108-2400	L	G	C	7–3	10⅛	FP	Pe	Str	M	RB	NE	P.Ow	Ow	Spi	Own BX	Own	O6IA	974	a	FX	192	109	33¼	54½x3	48x3½	N
108	611	5.7	398	54.2	128-2300	L	G	C	4–3½	10⅛	FP	Ow	Str	M	RB	NE	P.Ow	Ow	Spi	Own BQ	Ros	O6IA	902	a	FX	192	111	33½	50x3½	48x3½	½
109	611	5.7	398	54.2	128-2300	L	G	C	4–3½	10⅛	FP	Ow	Str	M	RB	NE	P.Ow	Ow	Spi	Own AC	Ros	O6IA	930	a	FX	180	109	37⅝	48x3½	52x4	½
110	611	5.7	398	54.2	128-2300	L	G	C	4–3½	10⅛	FP	Ow	Str	M	RB	NE	P.Ow	Ow	Spi	Own AK	Ros	O6IA	1044	a	FX	180	109	38½	48x3½	52x4	½
111	706	4.4	427	60.0	138-1900	L	G	C	4–3½	11⅜	PS	Ow	Str	M	RB	NE	P.Ow	Ow	Spi	Own AK	Ros	O6IA	930	a	FX	180	109	38½	48x3½	52x4	½
112	706	4.4	427	60.0	138-1900	L	G	C	4–3½	11⅜	PS	Ow	Str	M	RB	NE	P.Ow	Ow	Spi	Own AK	Ros	O6IA	1044	a	FX	180	109	38½	48x3½	52x4	½
113	529	4.9	350	51.3	114-2200	L	G	A	7–3	14	PC	Ha	Zen	M	DR	DR	D.Fu	Yo	Blo	Own-Wis	Ros	Ws4/6IA	760

Line Number	MAKE AND MODEL		GENERAL See Keynoter: Tonnage Rating	Chassis Price	Standard Wheelbase	Max. W. B. Furnished	Gross Vehicle Weight	Chassis Wt. Strippede	TIRE SIZE: Front	TIRE SIZE: Rear	MAJOR UNITS: ENGINE: Make and Model	ENGINE: No. of Cylinders Bore and Stroke	TRANSMISSION: Make and Model	TRANSMISSION: Location and Forward Speeds	TRANSMISSION: Aux. Location and Speeds	REAR AXLE: Make and Model	REAR AXLE: Gear and Type	REAR AXLE: Drive and Torque	REAR AXLE: GEAR RATIOS: In High	REAR AXLE: GEAR RATIOS: In Low	FRAME: Side Rail Dimensions	FRAME: Type
1	Mor'ndBD21M	4C	5	3534	184	Op	21000	8300	B7.50/20	DB7.50/20	Her WXC3	6–4¼x4½	BL 334	U 4	No	Tim 64800	WF	R	6.40	39.6	9 x3½x	T
2	(Con.)ED25M	4C	7	4067	184	Op	25000	8900	B8.25/20	DB8.25/20	Her WXC3	6–4¼x4	BL 334	U 4	No	Tim 65000	W	R	7.50	46.0	9 x3½x	T
3	.....HD34M	4C	10	5869	220	Op	34000	11000	B9.00/20	DB9.00/20	Her RXB	6–4½x5¼	BL 524	U 4	No	Tim 65720	W	R	8.50	62.0	9½x3 x	T
4	.....TD34	4C	10	7607	221	Op	34000	13250	B9.75/20	DB9.75/20	Con 16H	6–4¾x5¾	BL 724	U 4	No	Tim 68720W	W	R	8.75	62.0	11x3 x	T
5	SterlingFBT152	2R	8½	4580	174	204	30400	9500	B9.00/20	DB9.00/20	Wau 6-110	6–4x4¾	Own UC7	U 5	No	Own	BF	R	7.8	55.5	10x3¼x¼	L
6	.....FDT152	2R	8½	4705	174	204	30400	9700	B9.00/20	DB9.00/20	Wau 6-110	6–4x4¾	Own UC7	U 5	No	Own	2F	R	9.0	52.7	10x3¼x¼	L
7	.....FDS180	4R	8–10	8605	158	Op	36000	12850	P40x8	DP40x8	Wau AB	6–4½x5¾	Own UC8	U 4	A 3	Tim 310	2F	R	9.1	113.	15x3¼x¼	L
8	.....FDS200	4R	10–12	9130	159	Op	40000	13550	P40x8	DP40x8	Wau RB	6–5x5¾	Own UC8	U 4	A 3	Tim 410	2F	R	9.1	113.	15x3¼x¼	L
9	*.....FCS210	4R	15–18	10175	Op	Op	42000	14750	P40x8	DP40x8	Wau RB	6–5x5¾	Own UC8	U 4	A 3	Own	CD	R	9.5	59.6	15x3¼x¼	L
10	.....FDT200	2R	12–12½	7670	178	208	40000	12050	P40x8	DP40x8	Wau 6-125	6–4¾x5½	Own UC	U 4	Op	Own	2F	R	8.85	58.8	12x3¼x¼	L
11	.....FDT250	2R	16–16½	8855	186	216	50000	13550	P42x9	DP42x9	Wau RB	6–5x5¾	Own UC8	U 4	Op	Own	2F	R	8.85	55.5	15x3¼x¼	L
12	.....FCT180	2R	10–10½	7265	178	208	36000	11200	P36x8	DP36x8	Wau SRL	6–4¾x5½	Own UC	U 4	Op	Own	CD	R	8.2	54.5	12x3¼x¼	L
13	.....FCT200	2R	12–12½	7685	178	208	40000	11800	P40x8	DP40x8	Wau 6-125	6–4¾x5½	Own UC	U 4	Op	Own	CD	R	9.3	61.8	12x3¼x¼	L
14	Ward 440TC		15	11000	240	246	44000	14000	B9.75/22	DB9.75/22	Cu. Die. HA	6–4½x6	BL 735	A 5	No	Tim SDT420w	WF	R	6.42	40.4	14x3¼x¼	T
15	LaFr. 440TR		15	9350	240	246	44000	13700	B9.75/22	DB9.75/22	Wau RB	6–5x5¾	BL 735	A 5	No	Tim SDT420w	WF	R	6.42	40.4	14x3¼x¼	T
16	340TM		7½	4700	204	230	28000	9200	B8.25/20	DB8.25/20	Wau MK	6–4½x4¾	BL 5352	U 5	No	Tim SBT251H	SF	T	Opt	Opt	12x3¼x¼	T
17	.....400T5		12	7100	203	241	40000	13000	B9.75/20	DB9.75/20	Wau 6-125	6–4¾x5½	BL 5352	U 5	No	Tim SWT320tw	WF	R	8.5	65.5	14x3¼x¼	T
18	Wht.630SW200	4R	5–6	***	193	205	.....	10000	B8.25/20	DB8.25/20	Own A7	6–4 x5¼	Own 4B	U 4	No	Tim SW200H	WF	R	6.75	44.2	8½x3 x	C
19	...642SW320	4R	7–9	***	198	210	.....	12670	B9.00/20	DB9.00/20	Own 1AB	6–4¾x5¾	Own 7B	U 4	No	TimSW310W	WF	R	8.5	55.6	8½x3 x	C
20	...643SW420	4R	9–11	***	198	215	.....	14400	P40x8	DP40x8	Own 1AB	6–4¾x5¾	Own 7B	U 4	No	TimSW410W	WF	R	10.2	69.1	8½x3 x	C

Yes! In 50-Truck Fleets With 50-Mile Radius

(CONTINUED FROM PAGE 28)

day because of the absence of a little spring or a little gadget that only costs 15 cents. So we must continue with a stockroom. We endeavor, at the request of the manufacturer, to reduce our stock inventories. We also find that he has done likewise, sometimes much to our discomfort.

Several years ago one of the outstanding service stations in the Greater New York area, supplied us with fixed charges covering overhauling of various units and other repair work. At the time these prices were given I remarked to the service manager that such costs were no doubt the average and therefore could not be applied to individual repair cases. His remark confirmed that, and to make a long story short, after we had continued outside service on major repair work for a period of several months, we were forced to go back to major repair work, as the costs revealed an average of 27 per cent higher than our costs of doing likewise work. In the application of costs to our repair work, each department is treated as if it were a separate company; all charges covering rent, garage area, light, heat, power, insurance, productive personnel and non-productive personnel are applied.

I want to drive home that cost of major repairs is a very small item of your total maintenance; but that assurance of having it under your control in order that trucks might go out the next day and bring in your dividends is worth three or four-fold the cost of operating your shop, from a major standpoint. And remember, you are paying from 15 to 25 per cent premium for parts that go into the vehicles on outside service station work. If one can go into his fleet from a mechanical standpoint and even save 10 per cent, there is something wrong with the efficiency of his mechanical department.

From a dollars and cents standpoint continue with your own service station to maintain fleets in sizes of 50, operating in a concentrated area of 50 miles radius. Below that consideration should be given to outside maintenance. There is no question about those two points in my mind.

By H. V. Middleworth

Superintendent of Operations
Transportation Department
Consolidated Gas Co. of N. Y.

IN order to maintain a service station successfully, it must be equipped with modern machinery and all the things necessary to turn out a first-class job. It must carry a large stock of spare units, repair parts, supplies, etc. The small fleet operator could not possibly justify the cost of such equipment, and must depend upon the outside service station for economical maintenance.

The large fleet operator who is able to spread the cost of such equipment over a great number of vehicles can undoubtedly justify the expense of setting up the machinery and the personnel for self-service.

In the operation of a self-service organization it is essential that a portion of the shop be equipped for periodic servicing and minor repairs, which could not be handled efficiently by the outside station on account of time out of service and the expense incurred thereby. It is not necessary that this part of the shop be manned to peak efficiency at all times. The men could be assigned to the work as occasion demanded, returning to their regular duties at other times.

If an operator has a sufficient number of vehicles so centralized as to justify the establishment of a self-service repair shop, and if he employs a supervisory force in charge of competent mechanics equal to the outside shop, there is no reason in the world but that his vehicles can be maintained most satisfactorily, economically and efficiently.

Example of the modern types of trucks in the Motor Haulage Fleet

By G. W. Reimann

Supervisor Motor Vehicle Shop
Railway Express Agency

WE operate a little over 1300 vehicles. We have some of these vehicles where truck companies are out of business. Where will we send them? We have one central shop right in New York and several shops right around the city.

The whole idea is overservicing or underservicing. Some parts we send out for repair. Some we do ourselves. Sometimes we need parts; we are told to wait until they come from the factory.

Where does the manufacturer purchase his parts? In your own shop, if you have one vehicle out of service, working on it, you can always use the parts from that to keep several others on the road, whereas if the vehicle is out, you cannot do that.

Note to Readers

Readers who wish to express opinions on the subject of Self-Service vs. Outside-Service will find the pages of this Journal open to them.

Line Number	ENGINE DETAILS: Piston Displacement	Compression Ratio	Torque lb. ft.	N.A.C.C. Rated H.P.	Max. Brake H.P. at R.P.M. Given	Valve Arrangement	Camshaft Drive	Piston Material	MAIN BEARINGS: Number and Diameter	MAIN BEARINGS: Length	Oiling System Type	Governor Make	SYST. FUEL: Carburetors Make	SYST. FUEL: Fuel Feed	ELECTRICAL: Ignition System Make	ELECTRICAL: Generator, Starter Make	Clutch Type and Make	Radiator Make	Universals Make	FRONT AXLE: Make and Model	Steering Gear Make	BRAKES: SERVICE: Make, Location Type, Operation	BRAKES: SERVICE: Lining Area	BRAKES: SERVICE: Drum Material	BRAKES: Hand Location, Type	BODY MOUNTING DATA: Cab to Rear of Frame	BODY MOUNTING DATA: Cab to Rear Axle	BODY MOUNTING DATA: Width of Frame	SPRINGS: Front	SPRINGS: Rear	SPRINGS: Auxiliary Type
1	383	4.4	262	43.3	92–2400	L	G	C	7–2⅝	13¼	PC	No	Zen	M	AL	AL	P.BL	Lo	Cle	Tim 33020H	Ros	L6IH	578	a	TD	192	101	34	40x2½	42x2½	½
2	383	4.4	262	43.3	92–2400	L	G	C	7–2⅝	13¼	PC	No	Zen	M	AL	AL	P.BL	Lo	Cle	Tim 33020H	Ros	L6IH	661	a	TD	192	101	34	41½x2½	43½x3½	½
3	501	4.9	330	48.6	110–2200	L	G	C	7–3	12½	PC	No	Zen	M	AL	AL	P.BL	Lo	Cle	Tim26450TW	Ros	W6IA	898	a	TD	216	113	34	42x3	43½x4	½
4	611	4.5	384	54.1	127–2300	L	G	A	7–3	13¼	PC	No	Zen	M	AL	AL	dp.BL	Lo	Cle	Tim 27050W	Ros	W6IA	960	a	TD	Opt	Opt	38	44x3	48x3½	½
5	358	5.0	254	38.5	110–2800	F	G	A	7–2¼	12½	CC	Ha	Zen	M	DR	DR	D.Ow	Mo	Spi	Tim 35000N	Ros	L4IHV	596	a	CX	192	91	34	42x2½	57x4	N
6	358	5.0	254	38.5	110–2800	F	G	A	7–2¼	12½	CC	Ha	Zen	M	DR	DR	D.Ow	Mo	Spi	Tim 35000N	Ros	L4IHV	596	a	CX	192	91	34	42x2½	57x4	N
7	549	4.5	330	48.6	99–2000	L	G	C	4–3½	11⅝	CC	Ha	Zen	M	DR	DR	D.Ow	Mo	Spi	Tim 26450N	Ros	Ws4IA	576	a	CX	Opt	88	34	48x3	58x4	N
8	677	4.4	440	60.0	125–2000	L	G	C	4–3½	11⅝	CC	Ha	Zen	M	DR	DR	D.Ow	Mo	Spi	Tim 27450N	Ros	Ws4IA	792	a	CX	Opt	89	34	48x3	58x4	N
9	677	4.4	440	60.0	125–2000	L	G	A	4–3½	11⅝	CC	Ha	Zen	M	DR	DR	D.Ow	Mo	Spi	Tim 27450N	Ros	Ws4IA	792	s	CD	Opt	Opt	34	48x3	60x3½	N
10	462	5.5	324	45.9	125–2400	F	G	A	7–3	13⅛	CC	Ha	Zen	M	DR	DR	D.Ow	No	Spi	Tim 26450N	Ros	O4IA	792	a	CX	192	94	34	48x3	(10)	N
11	677	4.4	440	60.0	125–2000	L	G	A	4–3½	11⅝	CC	Ha	Zen	M	DR	DR	D.Ow	Mo	Spi	Tim 27450N	Ros	O4IA	792	a	CX	192	93	34	48x3	(10)	N
12	462	4.5	300	45.9	102–2400	L	G	C	7–3	13⅛	CC	Ha	Zen	M	DR	DR	D.Ow	Mo	Spi	Tim 26450N	Ros	O4IA	1152	s	JX	192	94	34	48x3	(10)	N
13	462	5.5	324	45.9	125–2400	F	G	A	7–3	13⅛	CC	Ha	Zen	M	DR	DR	D.Ow	Mo	Spi	Tim 26450N	Ros	O4IA	1152	s	JX	192	94	34	48x3	(10)	N
14	672	17.0	420	57.0	125–1800	H	G	C	7–3¼	16½	CC	En	No	M	CI	LN	dp.BL	Pe	Spi	Tim 27452W	Ros	Ws6IA	1012	a	TD	255	148¼	34	42x3	46x4	N
15	677	5.5	465	60.0	145–2000	L	G	C	4–3½	11¼	FP	Wa	Zen	V	DR	LN	dp.BL	Pe	Spi	Tim 27452W	Ros	Ws6IA	1012	a	TD	255	148¼	34	42x3	46x4	N
16	381	4.6	242	04.8	85–2400	L	G	C	7–2⅝	12½	FP	Wa	Zen	M	DR	DR	P.BL	Pe	Spi	Tim 35000H	Ros	L6IHV	651	a	TD	192	115	34	42x3	52x4	N
17	462	4.6	324	45.9	125–2600	F	G	A	7–3	13⅜	FP	Wa	Zen	M	DR	DR	P.BL	Pe	Spi	Tim26450TW	Ros	Ws6IA	902	a	TD	192	116¼	34	42x3	46x4	N
18	434	4.9	275	42.0	105–2100	H	C	S	7–2¼	13½	FP	Ow	Zen	M	DR	DR	P.Ow	Ow	Spi	Own 6D	Ros	L4rIHV	514	a	CI	194¼	109¼	34	42x3	51¼x4	N
19	519	4.0	333	45.9	118–2100	H	C	S	7–3	15⅛	FP	Ow	Zen	E	LN	LN	dp.Ow	Ow	Spi	Own 12D	Ros	Ws6IA	833	a	CI	194¼	109¼	34	42x3	42x4	N
20	519	4.0	333	45.9	118–2100	H	C	S	7–3	15⅛	FP	Ow	Zen	E	LN	LN	dp.Ow	Ow	Spi	Own 12D	Ros	Ws6IA	833	a	CI	194¼	109¼	34	42x3	42x4	N

No! Besides No Fleet Is Entirely Self-Serviced

(CONTINUED FROM PAGE 32)

tion which too readily jumps to the conclusion that what is good for such as these, must of necessity prove equally advantageous for its own.

In resting the case for the negative, I wish to say one further word about the attitude of progressive manufacturers on this subject:

Service activities are not engaged in from choice; but from necessity. The motor truck business would indeed be a sweet one if trucks could be built and sold with as little concern for maintenance as is the case with shoemakers, building contractors or furniture manufacturers. If all motor truck buyers were fleet operators, then trucks could be built as locomotives are.

But the motor truck is a machine of such intricacy, such responsiveness to differences in operation and care, and withal so terribly racked and strained and abused in average operation, that the moral as well as the business responsibility of the maker cannot end until it rolls out its last of so many, many thousands of miles and starts upon its journey back to the melting pot from which it sprang.

The average fleet is still less than two trucks or eight buses. It is the thousands of individual truck purchasers who make satisfactory and efficient trucks available to fleet buyers. The manufacturer is bound to provide service—complete service—for these thousands, regardless of fleet operators.

So it is not a question of whether trucks shall be maintained in service stations or operators' own shops. It is a question whether, when and to what extent it pays fleet operators to duplicate service station facilities and activities.

The negative concludes that while not denying that self-service in many cases does make for maximum maintenance efficiency in fleet operation, it by no means is justified in the majority of cases, thus making the basic resolution untenable.

By Charles Michaels

President
Michaels & Mourre, Inc.

I KNOW from my own observation that a great many fleet operators are kidding themselves along, thinking they are doing the work cheaper themselves than if they sent it out and had it done the way it would be done if they produced enough volume. By that I mean this: If more of the large fleet owners gave out more work, there would be more facilities for having it done.

By John Crone

Ass't Supervisor Motor Equipment
The Texas Co.

WE are now operating without any repair shops. We have retained a supervising force which inspects the units and checks them, traveling from place to place wherever they are. We are using the manufacturers' service stations as ours. The manufacturers are allowing us to make these inspections of the parts that Mr. Lyons says he would like to see. We pass on all parts.

He gave as one of the main reasons for maintaining his shop the fact that he could get a discount on parts. I don't know if it is general in the trade but we do get that discount. So the only thing we could possibly save was a small portion of the labor charge.

When we added our labor to our overhead, we found that we were practically paying the same (within a very small percentage) as what the manufacturer would charge us to do it in his own shop.

By Lewis W. Martin

New York Branch Manager
United Motors Sercice, Inc.

I OPERATE a service station in New York and give service to all makes of cars. I find it is a job, with at least 200,000 automobiles in New York City, to keep two or three men profitably employed to my benefit on such work as brakes, relining, steering geometry, radiators and similar specialized services. If with 200,000 cars of all makes to draw on I find it is a job to be profitable with two or three men in any one of those shops, I don't see how the fellow with two or three cars in his fleet is going to be able to support a man who obviously will draw anywhere from $100 to $200 a month salary.

I think the fleet operator does himself the greatest injustice through two things: One is, he doesn't know what he is talking about when it comes to cost of maintenance, in our experience. Second, we have to deal with the human element, because when you go in to try to sell a man on economical maintenance you are up against a man who is trying to retain his job. He is thinking of the wife and 10 kids at home a lot harder than he is of the boss' pocketbook.

The Judges' Decision

THIS debate on self-service versus outside service was sponsored by the Automotive Service Association of New York, Inc. F. K. Glynn, of the American Telephone & Telegraph Co., was chairman. The judges found that: "Where a fleet consists of a small number of vehicles, it has been established by both sides that a factory service station will best meet requirements; and that self-service will adequately take care of maximum maintenance efficiency where a large number of vehicles exist."

MIGHTIEST OF HEAVY DUTY • BRAKE LININGS •

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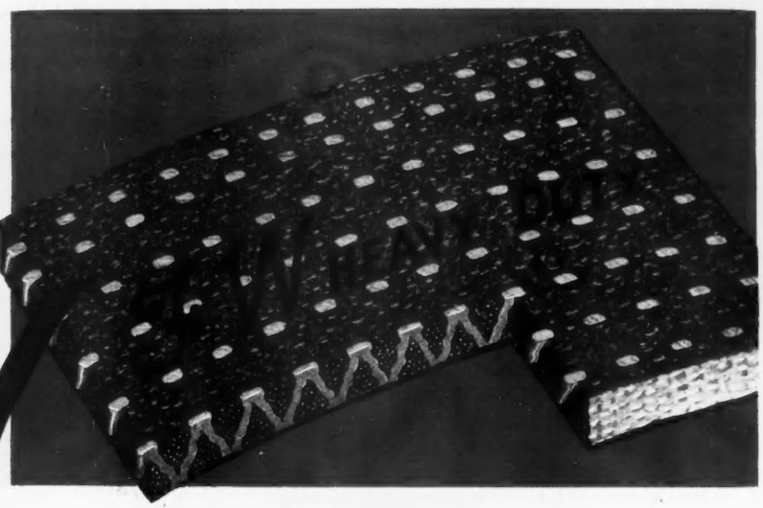

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(CONTINUED FROM PAGE 34)

truck owners who would employ it for fuel. That is the possible limitation or elimination of the supply. And the solution of that problem lies wholly in the hands of the oil companies.

While for a time it appeared that the big companies would welcome the purchase of butane, because it meant the profitable disposition of a by-product—the butane that came spontaneously with a flow of natural gas, for which there seemed no other market. Then it became evident that, with the spread of the demand for butane, the satisfying of that demand meant a decrease in the production of gasoline, since there is not nearly enough butane produced from the natural output of the natural gas wells to meet the growing need. Butane can also be produced by a different method of "cracking" the oil than that now used, but this of course means that that same oil, if used to a greater extent for butane, will yield a decidedly more restricted amount of gasoline. Confronted with that situation, the oil companies are now seriously engaged in the process of figuring out just which plan is more to its ultimate profit and to what extent. For while it would seem at first glance, with gasoline selling at from 14 to 16 cents per gallon in wholesale quantities and butane at 6½ cents (including state tax), that there could be little question as to which would produce the most revenue, other factors enter the situation. The comparative overhead cost of distributing the two products must be considered, and while this would be greatly in favor of butane, since a myriad of service stations and employes must be maintained for the sale of gasoline, it is to be borne in mind that this expense must continue in any event, since butane does not lend itself to use by owners of individual pleasure cars and there is by no means sufficient butane in sight to meet even the probable requirements of the truck operators without seriously crippling the present total output of gasoline.

The oil companies, therefore, have discontinued attempts to sell butane, even though they had established departments to promote its sale and are even to some extent discouraging its use, at least so far as making new contracts are concerned. Indeed, statements from the offices of the Standard and Shell oil companies assert they have no contracts outstanding for sale of butane, this in the face of positive declarations by the Butane Sales Co. that it has contracts with Shell and is operating on that basis. In fact, it claims to be offering three-year contracts for supplying butane at 3½ cents per gallon at the refinery to all who apply.

D. D. Purrington, in charge of butane sales for the Standard Oil Company in the San Francisco territory, said:

"There is no question but that butane will fit in somewhere in the economic picture, but just where and what its place will be no one can say at the moment. The Standard Oil Co. is considering the entire matter very earnestly and there will be a decision in a very few weeks."

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